

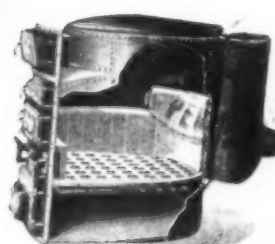
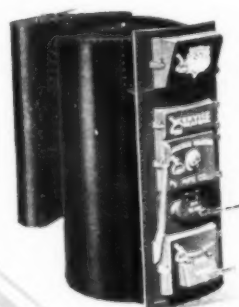
American Artisan *and* Hardware Record

Sheet Metal - Roofing - Warm Air Furnaces - Stoves

Vol. 93, No. 20

CHICAGO, MAY 14, 1927

\$2.00 Per Year



*The Emblem
of Quality*

Success Heaters

for

*Every Practical Requirement
for the Home, Mansion,
School, Church or
Auditorium*

SUCCESS HEATER MFG. CO.

1015 MURPHY STREET, DES MOINES, IA.



+



=



Success is the Result of Industrious Effort Plus A Condition

There's an opportunity for well posted heating men—former and present branch managers and salesmen in the heating business. This is not a direct branch proposition but an independent dealership for you.



If your present status in the heating business is unsatisfactory, unprofitable or uncongenial, *act now*—write us in confidence for full details of our proposal. There's a good big retail territory for you on a basis that will please you.

Independence

Be independent—
Be in business for
yourself—Have all
the profits. Have all
the advantages of
selling a modern
furnace, backed with
all the sales assist-
ance any company
offers—direct install-
ers or otherwise.



HOMER FURNACE CO., Coldwater, Michigan, U. S. A.

Capacity over
30,000 Furnaces
Annually

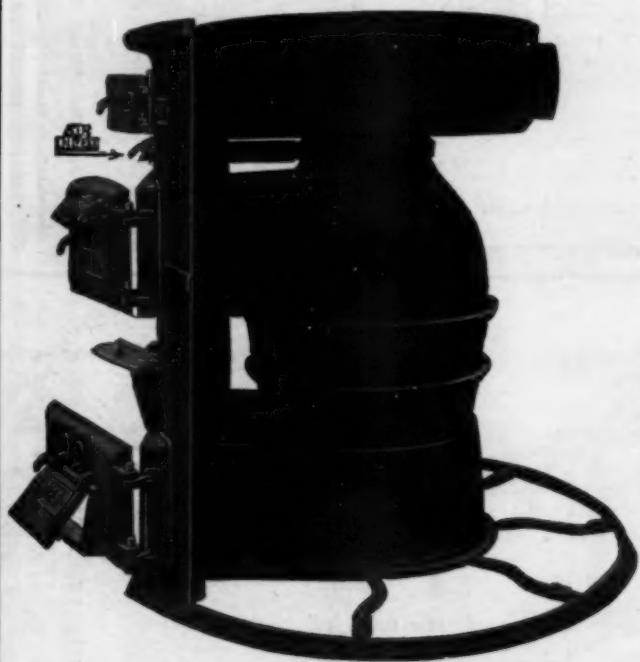
*"What's home
without a Homer"*

There's Harmony
in Homer Heated
Homes

DO YOU WANT TO BE PLACED ON THE MAILING LIST OF THE HOMER WEEKLY BULLETIN?

A Reputation to Uphold!

The Super-Smokeless
is the only really smokeless
furnace on the market. It
brings satisfied customers
and earns more profits.



VIEW OF CASTINGS OF THE
SUPER-SMOKELESS FURNACE

WHEN we, the Utica Heater Company, tell you that our line of furnaces is the best you can sell, we are saying it with a reputation of 45 years of successful manufacturing of heating equipment to uphold.

Six years ago we produced the SUPER-SMOKELESS Furnace. In this short time, this furnace has reached astounding success with the heating trade. It is a furnace which will meet any fuel situation. If soft coal is to be used, the SUPER-SMOKELESS device, which is an integral part of this furnace, burns all the smoke and soot. As you know, with the ordinary furnace, this is wasted up the chimney. With hard coal, all gases are completely burned and much more heat is derived.

It is also a very simple furnace to install, having such improved features as frameless feed and ashpit doors (no gas or dust can enter rooms at this point), one-piece dome and combustion chamber, and patented casing connections which "slip on" into position.

With all of the above features of our SUPER-SMOKELESS Furnace, you most certainly will have satisfied customers. Write us a card today and let us explain to you our exclusive Dealer Proposition.

UTICA HEATER COMPANY

UTICA, N. Y. — CHICAGO, ILL. — MANUFACTURERS OF THE

CELEBRATED LINE OF WARM AIR FURNACES FOR EVERY HEATING NEED



SUPERIOR PIPE

NEW IDEA PIPELESS

SUPER-SMOKELESS PIPE AND PIPELESS

ESSEX PIPE

ESSEX PIPELESS

NEW IDEA RECIRCULATOR

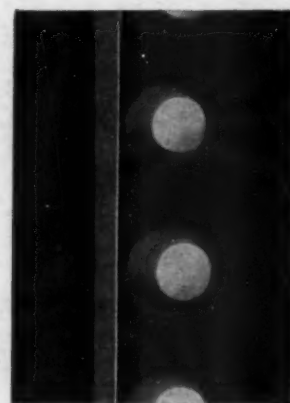
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"Western" Boiler Plate



Why It's Permanently Gas Tight

THE illustration shows how the Western's sheets of boiler plate steel are held together. Heavy rivets, driven in cold under 10 tons pressure, on inch and a quarter centers, and seams tightly calked in addition, make the strongest, tightest, and most permanent construction known.



Every joint possible in the Western has been eliminated. The radiator walls are made of a single sheet and the front extension is one piece with the body. The collar connections have telescopic joint, asbestos packed.

The Western Furnace has many other practical features of design which make it an unusually easy and satisfactory heater to sell. Among them are the top, corrugated to take up expansion and contraction, and heavy double grates which are easily shaken from a standing position.

Ask for our special dealer's proposition, which includes long profits, easy terms, and a special selling plan with many advertising helps.

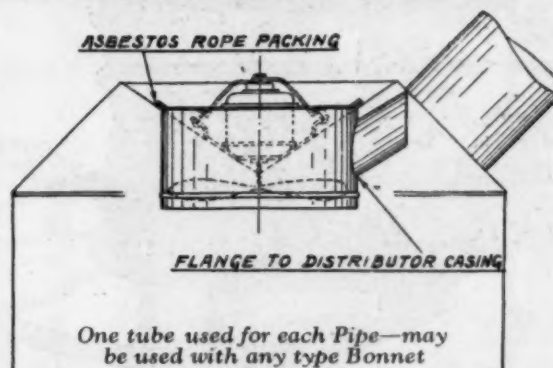
Western Steel Products Co.

130 Commonwealth Ave.

Duluth, Minn., U. S. A.

YOU CAN DO THIS

Install ROBINSON HEAT DISTRIBUTORS in two hours in any Warm Air Furnace Bonnet.



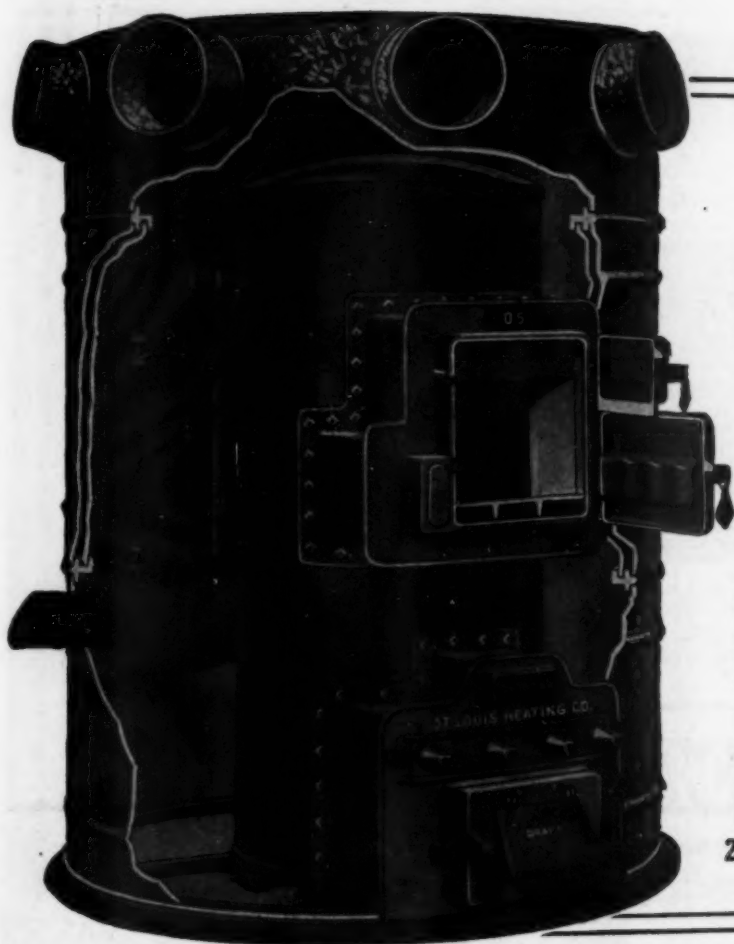
THE ROBINSON HEAT DISTRIBUTOR has real flexibility. The tube sizes leading to the furnace heating pipes depend upon the requirements of each individual pipe—tubes ranging from three to five inches may be used. Each unit is equipped with a three speed motor, giving an air delivery of 800, 1350 and 1500 Cubic Feet of Air per Minute. Easily installed in any type bonnet—prices and installation directions forwarded promptly upon receipt of your request.

Manufactured by

THE A. H. ROBINSON COMPANY

5103 Detroit Avenue

Cleveland, Ohio



**Only real quality
can make real
profits for you—**

AND when you decide to sell steel furnaces, which you will some day, remember that the construction of the furnaces illustrated here has the features of construction that have made

"HOME COMFORT"
(TRADE MARK REGISTERED)
Steel Furnaces

famous favorites for over half century

True their construction has changed with time, but only when real quality features could be added. Recent improvements on Home Comfort furnaces have increased their heating surfaces and made them more efficient and economical consumers of fuel. (Notice the gas and soot consuming features shown on the feed door.)

We have a special circular called "A Dozen Appeals to Reason" which points out some of the "Home Comfort" features. Write for it today.

ST. LOUIS HEATING CO.
2901-11 Elliot Ave., St. Louis, Mo.

PITTSBURGH DISTRIBUTOR
Wagner Bros., 3005 East Street

The Economical

NIAGARA

FURNACE



THE Home Owner today demands a heating plant that not only operates successfully but economically as well.

The NIAGARA holds that reputation.

It is built right—sold right. Our Dealer Co-operation Plan assists you to sell it and install it in a way that wins permanent friends.

Ask us about the Niagara Dealer Franchise.

Also Manufacturers of
Monarch Furnaces

THE FOREST CITY FOUNDRY & MFG. CO.
1220 Main Avenue
Cleveland, Ohio.

"Stream-line" Body

One of Many Outstanding Keith Furnace Features Which Helps Double Your Furnace Business

THE "STREAM-LINE" body design permits the circulating air to pass up over the body's very effective heating surface with the minimum resistance. This feature gives your customers much more heat with the same amount of fuel.—A clinching sales argument.



Combined upper fire-pot, feed section, and body

LARGE double feed door opening—a convenient feature for feeding large chunks. Water coil placed entirely out of way in pocket at side of feed door. Many other unusual, better heating factors contribute to the practicability and saleability of the Keith Warm Air Furnace.

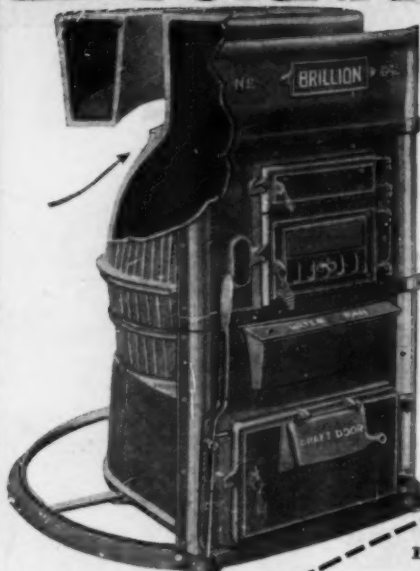
"Always Save Money in the End"

KEITH

Furnace Company

Des Moines, Iowa

BRILLION FURNACES



ACTUALLY make it possible for you to get a better price yet they are competitive priced.

Notice there is weight where weight belongs in Brillions—there is real quality throughout.

The Brillion is your answer for better quality at a fair price.

A. A. BRILLION FURNACE CO.
290-300 Park Ave.
Brillion, Wisconsin

Send me full details and your catalog No. 60.

Send this coupon today

Name.....

Address.....

MEL

LOW



NOTICE the new design of the Mellow combustion chamber—lugs at the top add strength.

The new MELLOW radiator is another advanced feature—truly one-piece, and the cleanout is even with the bottom of the radiator, which allows easy cleaning.

Notice hinged door on cleanout—large double feed door and large water pan.

You'll find a great many more fine points of construction on the MELLOW—it's a quality furnace at a competitive price.

Write for special illustrated circulars and catalog today

CHICAGO
BRANCH AND
WAREHOUSE
6 East Lake St.
Room 512
M. Braunstein,
Representative

The Improved Heating Unit

1927 AGENCIES
We have a few very choice territories still open for 1927. Let us show you a truly remarkable agency proposition.

Liberty Foundry Company

St. Louis, Missouri

The Price Cutter Hasn't a Chance

The fellow who sells on low price isn't selling heating satisfaction; and if he ever heard of The Standard Code, he certainly doesn't talk it.

The dealer who sells the New series "C" Moncrief Furnace can beat the price cutter every time with a sensible buyer by explaining the benefits of correct installation and the points of merit of this new Moncrief Furnace.

Best of all, its cost bears favorable comparison with other good furnaces.

Write for details.

The HENRY FURNACE & FOUNDRY CO.

3471 E. 49th St. Cleveland, Ohio

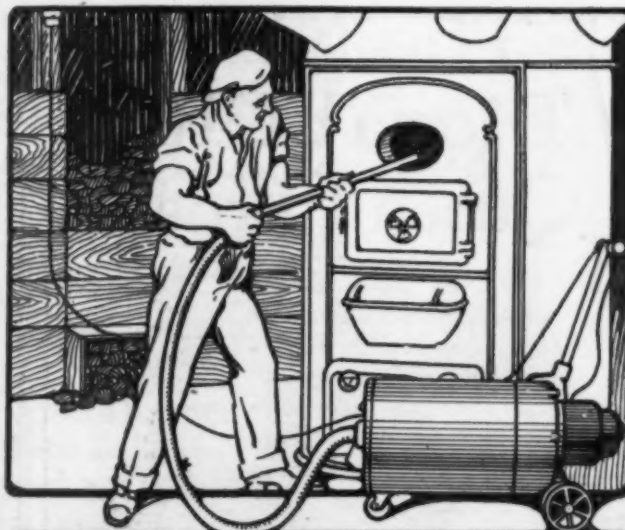
We supply everything used on a warm air heating job.

Distributors:

Carr Supply Co., 412 No. Dearborn St., Chicago, Ill.
Johnson Furnace Co., Kansas City, Mo.
F. H. Hanlon, Batavia, New York
Moncrief Furnace Co., Atlanta, Ga.
Moncrief Furnace & Mfg. Co., Dallas, Texas



MONCRIEF FURNACES



Cleaning Furnaces this NEW QUICK WAY Increases Your PROFITS 1/2-2/3

NOW furnace men are increasing their profits 1/2 to 2/3 by using this new quick method for cleaning furnaces. One man can clean from 5 to 8 furnaces a day and do a more thorough job with the Sturtevant Portable Furnace Cleaner—it's the biggest time and labor saver on the market.

Right in your vicinity there are hundreds of furnaces that should be cleaned before Fall. Get one of these cleaners and handle a larger volume of cleaning business. Offer your customers a quick and thorough cleaning service. You can make a splendid profit on the cleaning alone, which will more than pay for the cleaner in a short while, and you'll have a chance to make another profit by selling new furnace parts if any are needed or new furnaces if the old ones are badly worn.

The Sturtevant Portable Furnace Cleaner is simple and ruggedly built, has a powerful suction, is easy to handle, and can be operated from an ordinary electric light socket. Complete set of suction tools and brushes are supplied with cleaner. Write for further information on this machine. Use the coupon below.



HYDE PARK,
BOSTON, MASS.

Dept. AA514

B. F. Sturtevant Company,
Hyde Park, Boston, Mass.

Without obligation to me, send along further information and price on the Sturtevant Portable Furnace Cleaner.

Name

Address

City..... State.....

1587

The NEW Floral City Queen Furnace



*An entirely new
furnace with many
advanced improvements*

WE not only combined all that was best in furnace construction, but developed new features not found on other furnaces. We can't list all of the superior features of this New Floral City Queen in this advertisement, but—

Here are a few of the big points:

1. Large one-piece cast radiator with extra large opening from combustion chamber with direct-indirect draft damper.
2. Smoke and cleanout collar extend through the casing and front. Throats of feed door and ash pit extend through front and both doors and throat are disc ground to insure perfect fit.
3. Only four joints inside casing and these joints are extra deep covered joints.
4. Extra large water pan—lever shaker handle—rocker type grates—heavy ribbed two section straight fire pot—large one-piece roomy ash pit and other improvements.

*Constructed and rated to meet all
requirements of the standard code*

WRITE FOR OUR AGENCY PROPOSITION
TODAY

Floral City Heater Company
Monroe, Michigan

CHICAGO OFFICE
1654 Monadnock Building

DETROIT BRANCH
4452 Cass Ave.

Make Better Sales With These Better Wise Furnaces

WISE dealers and many new Wise dealers are now confining their purchases to one house because they find in the Wise line a complete quality line.

NOTICE that Wise has eliminated the big weak spot in steel furnace construction. The bottom of the radiator has a CAST IRON SOOT BOX AND CLEAN OUT.

RIVETED AND WELDED BODY—SPECIAL DESIGN GRATES and LEVER SHAKER HANDLE.

Other features too—and a guarantee that helps you sell this quality steel furnace.



THE Wise Open Dome Furnace has been greatly improved. The new Wise ONE-PIECE Cellular Firepot allows the air to become thoroughly preheated before entering above and into the fuel. Another feature is the Elbow Shaped Flue Collar on inside of Radiator which is turned up so all of the heat must follow the castings to the top before entering flue.

THE Wise 20 Series has a New Patented Radiator. Construction allows communication between feed chamber and top radiator which brings the opening of the fire flues of the radiator directly into the feed chamber, making the flues readily accessible for cleaning through the upper feed door. The dirt falls directly into the firepot. This is a big advantage to the owner as a radiator that is easy to keep clean will be kept clean.

The New Wise CELLULAR FIRE POT is also a feature of this furnace.



Write for special circular today

The Wise Furnace Co.
AKRON, OHIO

D O N ' T C H O K E !

IF there is a single place in a stack where the cross-section size is reduced, then the whole stack is, in effect, reduced to that size and it will not meet the requirements of the **STANDARD CODE**.



USE "HANDY" FRICTIONLESS FURNACE PIPE

and be sure that every stack is **FULL SIZE**
thruout—

**THAT'S THE WAY TO DO
A GOOD JOB**

according to the Standard Code

F. MEYER & BRO. CO.

Peoria

Illinois

Published to serve
the
Warm Air Furnace,
Sheet Metal, Roofing
Stove and Hardware
Industries

Founded 1880

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\$2.00 Per Year.

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AN ACHIEVEMENT

An explanatory note regarding service to readers of AMERICAN ARTISAN. This paper is now nearing the completion of a half century of service. For almost fifty years it has catered to the needs of the men in the industries which it represents. At no time during its long and successful career has AMERICAN ARTISAN been in a better position to render complete, adequate service to its readers than it is today. In addition to the matter contained in our regular weekly publication, we maintain Service Departments for the use of our readers. If you have a problem to solve, we courteously invite you to submit it to us for solution. In what better way can we learn of your problems than from you direct?

The **Weir** is a better furnace simply because it is built and designed on a quality basis thruout. It is built on a strictly quality basis simply because that has proved the best for the user, for the dealer and for us for over forty-five years

THE Weir is the highest quality steel furnace on the market and that means that it is the best heating unit for a warm air heating system that can be had.

We don't believe in superlatives in advertising but isn't it a fact that the Weir is the highest priced steel furnace on the market?

Isn't it a fact that we couldn't get this higher price unless it was worth it?

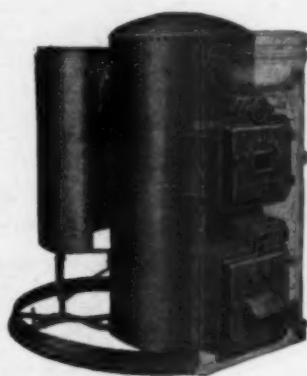
When you decide that you are the type of dealer who

wants to sell *quality warm air heating* or nothing at all you'll sell the Weir.

When you decide that this is the fairest as well as the most profitable business policy you'll sell the Weir.

Weir dealers sell quality warm air heating by choice and they are invariably prosperous.

We would welcome the opportunity of *proving* to you that if you can sell *better warm air heating* you can make a better profit with the Weir.



The MEYER FURNACE CO.
Peoria, Illinois



THE GROWING POPULARITY of WARM AIR HEATING



and the ever increasing appreciation of the superior merits of this type of heating are largely the result of the research and advertising activities of the NATIONAL WARM AIR HEATING & VENTILATING ASSOCIATION.

These activities have been made possible by the financial co-operation of the following active members of the Association:

- | | | | |
|--------------------------------------|--------------------|---------------------------------------|----------------------|
| 1. American Furnace Co. | St. Louis, Mo. | 37. May-Fiebeger Furnace Co. | Newark, Ohio |
| 2. American Fdry. & Furnace Co., | Bloomington, Ill. | 38. McClary Mfg. Co. | London, Ont., Canada |
| 3. Andes Range & Furnace Corp. | Geneva, N. Y. | 39. Meyer Furnace Co., The | Peoria, Ill. |
| 4. The Armstrong Company | Detroit, Mich. | 40. F. Meyer & Bro. Co. | Peoria, Ill. |
| 5. Beckwith Company | Dowagiac, Mich. | 41. Minneapolis Heat Regulator Co. | Minneapolis, Minn. |
| 6. Bovee Furn. Works | Waterloo, Iowa | 42. Milwaukee Corrugating Co. | Milwaukee, Wis. |
| 7. Bridge & Beach Mfg. Co. | St. Louis, Mo. | 43. Moore Bros. Co. | Joliet, Ill. |
| 8. The Bryant Heater & Mfg. Co. | Cleveland, Ohio | 44. Peninsular Stove Co. | Detroit, Mich. |
| 9. Columbus Htg. & Vent. Co. | Columbus, Ohio | 45. Payne Furnace & Supply Co., | Los Angeles, Calif. |
| 10. Co-Operative Fdry. Co. | Rochester, N. Y. | 46. Pecora Paint Co. | Philadelphia, Pa. |
| 11. Abram Cox Company | Philadelphia, Pa. | 47. Premier Warm Air Heater Co. | Dowagiac, Mich. |
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| 16. Forest City Fdry. & Mfg. Co. | Cleveland, Ohio | 52. Rybolt Heater Co. | Ashland, Ohio |
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| 18. Fuller & Warren Co. | Troy, N. Y. | 54. R. J. Schwab & Son Co. | Milwaukee, Wis. |
| 19. Graff Furnace Company | New York, N. Y. | 55. Security Stove & Mfg. Co. | Kansas City, Mo. |
| 20. Hall-Neal Furnace Co. | Indianapolis, Ind. | 56. Stanton Heater Co. | Martins Ferry, O. |
| 21. Hart & Cooley Co. | New Britain, Conn. | 57. Success Heater Co. | Des Moines, Iowa |
| 22. Henry Furnace & Fdry. Co. | Cleveland, Ohio | 58. Stiglitz Furnace Co. | Louisville, Ky. |
| 23. Hero Furnace Co. | Sycamore, Ill. | 59. Symonds Register Co. | St. Louis, Mo. |
| 24. Wm. Highton & Sons Co. | Nashua, N. H. | 60. Thatcher Company | Newark, N. J. |
| 25. Holland Furnace Co. | Holland, Mich. | 61. Tubular Heating & Vent. Co. | Philadelphia, Pa. |
| 26. Homer Furnace Co. | Coldwater, Mich. | 62. Thomas & Armstrong | London, Ohio |
| 27. Hood Furnace Co. | Corning, N. Y. | 63. Tuttle & Bailey Mfg. Co. | New York, N. Y. |
| 28. Independent Register & Mfg. Co., | Cleveland, Ohio | 64. XXth Century Heating & Vent. Co., | Akron, Ohio |
| 29. International Heater Co. | Utica, N. Y. | 65. Utica Heater Co. | Utica, N. Y. |
| 30. Chas. Johnson Co., Inc. | Peoria, Ill. | 66. Walworth Run Fdry. Co. | Cleveland, Ohio |
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| 35. Mt. Vernon Furnace & Mfg. Co., | Mt. Vernon, Ill. | 71. Waterloo Register Co. | Waterloo, Iowa |
| 36. Marshall Furnace Co. | Marshall, Mich. | | |

The National Warm Air Heating & Ventilating Assn.
174 East Long Street
Columbus, Ohio



American Artisan and Hardware Record



Vol. 93.

CHICAGO, MAY 14, 1927

No. 20.



Interior View of Work Shop of the Homer Selch Sheet Metal Works, Indianapolis—Note Work Benches on Wheels, Tidiness of Shop, and Location of Tools and Stock

Sheet Metal Shop on Wheels Insures Against Loss of Time Going to Jobs

Homer Selch, Indianapolis, Builds Splendid Sheet Metal Business by Application of Modern Ideas

By GEORGE J. DUERR

THE plumbers and to some extent repairmen of all kinds, have won for themselves, whether justifiably or not, the reputation of spending a great deal more time than is necessary going back and

forth between the job and the shop for tools, which they neglected to take out with them on their first trip, thus increasing the amount of the bill to the home owner.

To counteract this adverse public

sentiment insofar as his shop is concerned, Homer Selch, 844 Virginia Avenue, Indianapolis, Indiana, conceived the idea of erecting what he terms (and I have never seen anything like it before) the only

FURNACES

REPAIRING A SPECIALTY

METAL CEILING'S
SKYLIGHTS
CORNICE
GUTTERING
SPOUTING

PARTS FOR ANY MAKE
FURNACE



PHONE DREXEL 2773

BRANCH SHOP ON WHEELS—SAVES MONEY ON WORK FOR YOU

844 VIRGINIA AVE.

Type of Letterhead Used by Homer Selch Sheet Metal Works for Circularization Work. Note How This Ties Up With Newspaper Advertisement Below

sheet metal shop in the country on wheels.

The accompanying illustrations show the exterior and interior appearance of the shop. It is constructed on a 1-ton Ford truck and an extension. This rolling sheet

gives the reader an excellent idea of the extensiveness of the layout in this unique accessory to the modern sheet metal shop which Mr. Selch operates.

At the extreme forward end of the truck is seen a sheet metal box

in view, is located an acid box, especially arranged to carry acids and fluxes. The acid containers are enclosed in a sheet metal box, which in turn is placed in a wooden container. If the acid spills, the sheet metal box can be taken out and replaced by a new one.

Along the upper left hand side of the truck are placed boxes of nails, braces of all kinds.

The place for the ladders is easily seen on the cut. The gutters and downspouts of all kinds are also conveniently located on the truck.

Turning to the exterior view, we see a succession of pockets all the way around the lower part of the truck. Cement, gravel, sand, rolls of paper roofing are placed in these pockets. Nothing that a sheet metal worker could possibly need out on a job in the way of tools or repair materials is neglected.

Two men operate the truck, and their work is so organized for them by Mr. Selch that when they enter the shop in the morning, they find their orders for the day in a basket for that purpose. There is no delay or confusion. They take their orders, jump into the sheet metal shop on wheels and are gone for the day.

Of course it will be realized that the truck was rather expensive to build. It was designed entirely by Mr. Selch himself, who later watched each step of the construction as it progressed. The outfit was torn apart twice and reconstructed before Mr. Selch was entirely satisfied with it.

We have solved the sheet metal problem.

The above reproduction is of our new COMPLETE SHOP ON WHEELS—and is the only one of its kind in the country. When this truck pulls up in front of your house you know that it brings everything necessary to do the very best kind of a job.

CALL US FOR EXPERT WORK.

HOMER SELCH

844 Virginia Avenue. Drexel 2773.

We recommend and install the Jewel Furnace.

One of the Newspaper Advertisements Used in the Indianapolis Daily Papers

metal shop contains everything that a sheet metal workman could possibly need out on the job. There is no leaving of tools behind with this outfit. There is no running back for a wrench, a piece of pipe or an additional sheet.

The interior photo of the truck

especially constructed for the safe carrying of a fire pot. Immediately above this box is a small work bench equipped with a tiny vise and stake to do the grooving out on the job. A special place is arranged for the level.

Next to the fire pot box, but not



Above—Exterior View of Sheet Metal Shop on Wheels. Below—Interior View of Same Truck, Showing Location of Tools and Supplies

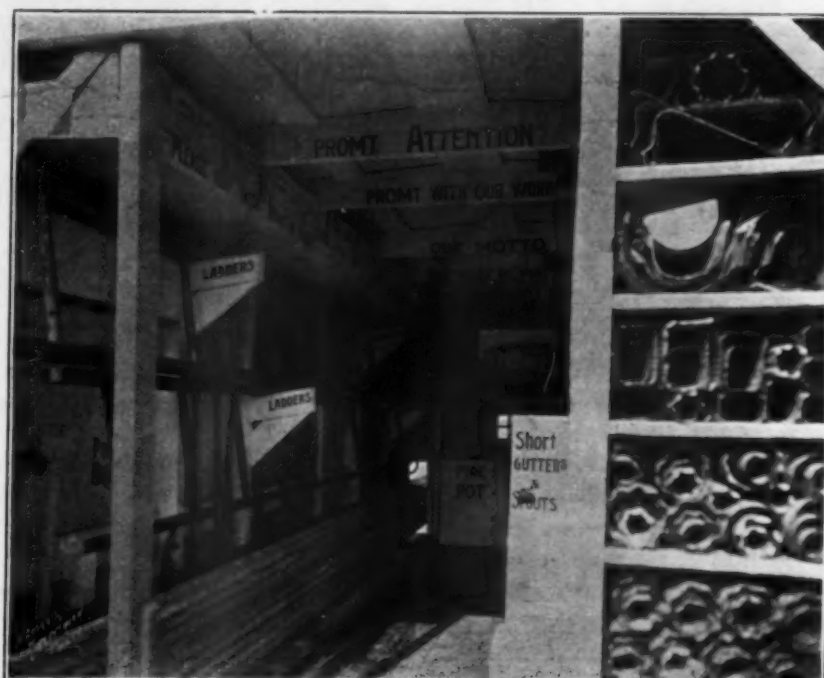
In spite of the expense which he was put to in achieving this unique feature of his business, Mr. Selch has already found the outfit to be a big time saver. Although the truck has only been in operation for about a month, it has already made possible a material reduction of operating expenses. Under these circumstances the truck will pay for itself in a very short time.

The idea for this traveling sheet metal shop is nothing more than the crystallization of an observation which Mr. Selch had made with regard to the public's attitude toward the slow moving repair man, particularly the plumbers. While other men were "cracking" jokes about it, he was using his brains to overcome

it, and thereby make a profit himself.

Mr. Selch is an exceedingly suc-

cessful sheet metal contractor. He has that happy faculty of organizing men and materials to a high de-



gree and puts it to good use in his sheet metal and warm air heating business. This trait within him is shown in everything he does, and is particularly visible in his methods of advertising.

Homer Selch came home from the war without a cent. He had been a traveling salesman before the war, but decided that he could use his

credit to any sheet metal man. He has entirely paid off the indebtedness which he incurred when purchasing the sheet metal shops when he started out, and has a fleet of six trucks, which are kept in constant operation. It is Mr. Selch's intention to build another sheet metal shop on wheels similar to the one he already has.

more out of associating with his competitors and talking over business problems than he can by keeping entirely to himself. He is a member of the Indianapolis Sheet Metal Contractors' Association, the emblem of which association can be seen on the side of the truck illustrated herewith.

An illustration of the interior of the Homer Selch Sheet Metal Works is also included in this story. Progress is the watchword, according to him. Constantly thinking over methods of doing things and seeking new and quicker ways of doing them without sacrifice of quality workmanship is the way of progress, and Mr. Selch's mind is continually working out new modes and methods. He does not shrink from giving his ideas to other sheet metal contractors, because he is confident that he will get back more than he gives.

He reasons that if he does his bit toward helping other sheet metal contractors to learn new and more efficient ways of doing their business, he is raising the standard of the entire industry by just that much, and as he is constantly evolving new ideas, he keeps ahead of the others and helps them at the same time.

Mr. Selch appreciates to the fullest extent the value of getting news stories about his business accepted by the local daily papers. The following news story is characteristic:

"Quality materials, service and workmanship are the 'planks' of the business platform of Homer Selch, 844 Virginia Avenue, sheet metal contractor and warm air furnace installer.

"More than fifteen years' service as a sheet metal worker in the city, plus years of practical experience in learning his trade, has enabled Mr. Selch to attain a high degree of proficiency in his line of work.

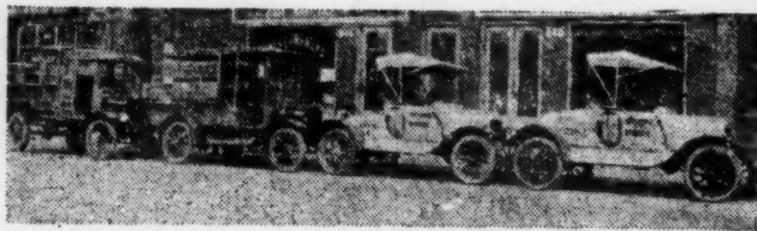
"With a 'woodshed' beginning, Mr. Selch has steadily progressed until he is now the proprietor of a first rate sheet metal shop. The office and shop are carefully arranged to take care of the business. Plenty of daylight is available for

PROMPT ATTENTION PROMPT WITH THE WORK

This Is Our Motto

It is the time of year that you should have your Gutters, Spouts and all the Tin Work looked over, as the spring rains damage your plastering, new papering, painting and your foundation.

Hot Air Plants need attention. Cold weather arouses interest in improper systems of Furnace installations. If you have a furnace that has not been giving satisfaction, we will be glad to examine same and explain where the trouble has been.



We have a fleet of trucks in our equipment which means quick service when the furnace goes wrong. Our firm has long specialized in repair work, but now it is better equipped to look after the needs of householders than ever before.

We have new equipment to take care of all classes of this work and do any size job. You are just as near to us as your telephone. A call and we are at your service.

I would suggest that you place your order with us immediately.

844 Virginia Ave.

DRexel 2773

HOMER SELCH SHEET METAL WORKS

P. S. Watch for Our Tin Shop on Wheels.

Another Daily Newspaper Advertisement of the Homer Selch Sheet Metal Works. Note Tie-up Employed

talents in a business for himself to just as good advantage as he could use them for some one else. He purchased, on a shoe string, the businesses of two sheet metal contractors who had been in business for so long a time that they were ready to retire. In the ten years that he has been operating for himself he has built up a business that is a

How Mr. Selch maps out his advertising campaigns so as to catch attention and direct it toward his business is shown in three of the illustrations. Two of these were used in the Indianapolis newspapers and the third is a reproduction of the letterhead which he employs.

Mr. Selch is an association man. He believes that he can get much

workmen and employees of the concern.

"'Benches on wheels' have been installed in the shop in order to facilitate the work being handled.

"In addition to the general tin work, which includes metal building supplies of all kinds, Mr. Selch undertakes to repair any type of furnace.

"Mr. Selch has been engaged in

completing the sheet metal work on a large number of houses for the Southern Builders Company in Broadway Terrace."

This article appeared in the Indianapolis Times for May 9, 1927, under the heading: "Tin Man Started in Shed." The article was accompanied by an illustration of the sheet metal shop on wheels shown herewith.

Indiana Sheet Metal and Warm Air Heating Men Will Consolidate

Separate Organizations Not, to Lose Identity, but Will Be Woven into Single Body

SOMETHING very definite and constructive can be looked for from the Indiana Sheet Metal Contractors and the Indiana Warm Air Heating and Ventilating men from now on.

During the last day of the convention session held in the Hotel

Sheet Metal Contractors' Association and the Indiana Warm Air Heating and Ventilating Association will be equally represented in every respect and particular. The name for the new organization shall be such that neither organization loses its identity. The by-laws shall be



Group of Indiana Sheet Metal and Warm Air Furnace Men at Indianapolis Convention

Severin, Indianapolis, last week a definite policy of consolidation of the two organizations was agreed upon. After a discussion which consumed practically the entire afternoon of the last day's session, the two organizations in joint session agreed to appoint committees whose duties will be to devise ways and means of effecting a consolidation that will be agreeable to the two organizations as separate entities.

When completed, an organization will exist in which the Indiana

such as to be fair to both organizations.

In addition to this consolidation process, the Indiana organization agreed to accept into full membership the members of the Indianapolis Sheet Metal Contractors' Association. This is, indeed, a big step forward, and removes with one stroke the animosities that have worked materially in keeping the Indiana men apart.

Thus it is seen that with all the separate elements in the sheet metal

and warm air heating industry throughout the state of Indiana working in harmony, the interests of the industry in that state will be much more rapidly advanced than they could be in any other way.

The Indiana men are to be congratulated on their magnanimous spirit and their desire to put aside petty jealousies for the bigger and broader purpose of working for the interests of the industries they represent as a whole.

* * *

In the report of the Indiana Sheet Metal Contractors' convention, held at the Hotel Severin, Indianapolis, last week, several errors inadvertently occurred in the captions under the cuts. On page 14 Paul Jordan's caption got under the cut of George Thomas, while under the cut of Paul Jordan the name of Harry Fenton appears. Out of Harry Fenton on page 16 they tried to make Harry Neal and Harry Neal became George Thomas. We are extremely sorry that these errors occurred and ask the forgiveness of the men who thus had their several identities so rudely jostled.

Etie Sheet Metal Works, Houston, Texas, Increases Capital Stock to \$25,000.

The Etie Sheet Metal Works, Inc., 1509 Washington Avenue, Houston, Texas, has increased its capital stock from \$15,000.00 to \$25,000.00. The increase was made necessary by the rapid growth of the business.

The officers of the company are: W. R. Etie, president; D. Barker, vice president; W. O. Olsen.

Directors: J. G. Donovan, A. C. Kater, G. L. H. Koehler, G. E. Davis, D. Barker, W. O. Olsen, W. R. Etie.

In addition to the department heads, H. M. Biebel, furnace and ventilating; Lloyd Shaw, burner and regulator; G. E. Davis, foreman; Louis Baumann, assistant foreman; Bessie Lee, stenographer; Mary Cox, Bookkeeper, the firm has thirty-two mechanics, apprentices and helpers.

Metal Branch Holds Successful Meeting at Cleveland, Ohio

Business Prospects for Coming Year Encouraging — Simplification Program Working Out Well

THE Metal Branch of the National Hardware Association of the United States held its sixteenth annual meeting at the Hotel Cleveland, Cleveland, Ohio, May 5 and 6, 1927.

Chairman F. O. Schoedinger was introduced to the membership present at the opening session by former Chairman W. H. Donlevy, who expressed his appreciation for the splendid coöperation he had received from the membership in carrying on the work of the organization.

Mr. Schoedinger opened his remarks with an acknowledgement of the honor that had been bestowed upon him by his being selected chairman of the Metal Branch. He said that he had been a member of the organization since its inception, and felt that the morale, ethics and attitude of distributors of sheet steel have been greatly advanced by the association.

In regard to business, Mr. Schoedinger said that the 1927 business average for the first four months was about the same as that for 1926. It reached its peak in March and has shown some contraction during April.

The underlying economic conditions, however, remain sound, credit is abundant, and while competition is more severe, prospects are very encouraging.

Following some short announcements by A. W. Howe, chairman of the Entertainment Committee, George DeCamp, chairman of the Board of the Federal Reserve Bank of Cleveland, gave an address on "Business and Financial Conditions." Excerpts of this address will be published in a later issue of AMERICAN ARTISAN.

C. E. Stuart, president of the Central Alloy Steel Corporation, spoke of the merger of his company

with that of the Central Steel Company. Mr. Stuart also touched upon the existence of a very excellent opportunity to show a satisfactory earning capacity in the sheet business. In attempting to elaborate upon this, Mr. Stuart found himself too ill to continue and asked to be excused.

The keynote of the meeting was, "How Can the Distribution of Sheet Metals Be Made More Profitable?" Mr. F. A. Moeschl had considerable to say on this subject, and the gist of his remarks were that during the thirty years he has been interested in sales and distribution of sheet steel and sheet steel products he had learned that the only way to convince the dealer is to educate the consumer to the wisdom and ultimate economy of sheet metal roofing.

He also mentioned that while formerly there were from three hundred to five hundred different sizes of sheets, 87 per cent of the entire demand was confined to 15 per cent of the sizes. The principal problems, as Mr. Moeschl views the situation, are terms, credits, overhead, etc.

Distribution involves selling from one to another. If it were possible to convert every jobber's salesman to blind faith in sheet steel, all evils would be overcome. What is needed is the proper kind of optimism to offset the inferiority complex in the minds of the salesmen.

If the jobbers will see to it that each and every salesman is sold on the advantages of sheet steel, distribution costs will be reduced, profits increased.

Advertising also is an economic force in the minds of the public. Business will be more profitable when—

First: If we confine all inter-

ested to distribution and sales of standard sizes only.

Second: Sell sheet iron and steel on service basis.

Third: Take advantage of and have faith in the Sheet Steel Extension Committee's efforts in preparing the minds of the ultimate consumer by advertising and through promotional literature.

Fourth: When sheet metal jobbers will sell sheet steel when it may not be wanted by those needing it.

Robert H. Lyon, speaking at the morning session:

"Coöperation is the keynote of success. 'United we stand; divided we fall.' If true in our own United States, why not in the sheet metal industry?"

"The bosses or men who invest the money in the business, rely entirely too much on information furnished them by employees. They do not know enough about their own business.

"Second: They know their overhead in total, but not on each individual product. They do not know what percentage to apply to overhead on each product.

"Third: They do not know and can not know the cost of material with overhead added, so how can they know price?"

"Fourth: We are too anxious to sell everything and every one in sight. We are obsessed with more volume, but forget more profit."

Referring to the question, "Is the wholesaler or distributor an essential factor in business?" Mr. Lyon quoted from Mr. Fernley's paper as follows:

"The value of the distributor or wholesaler is an economic fact long established. He gathers under one roof products of many factories, selling in small quantities to dealers. He is better able to judge credit

standing because he can come in closer contact with the dealer.

"Direct dealing between manufacturer and dealer is practically uneconomical and infeasible. Wholesalers are not and should not be eliminated. The wholesaler is the shock absorber between manufacturer and buyer. Are your mills going to continue to sell the sheet metal contractor direct at the same price as the jobber?"

Will there be established a differential of prices between the jobber and dealer?

What constitutes a distributor or jobber?

There must be closer coöperation between the manufacturer and the jobber. More knowledge of overhead. You must know more about your *own* business than your *competitor's*.

First: Monthly profit and loss inventory is necessary. Second: Volume does not decrease expense and profits are not predicated on volume, but by getting some profit on every item. Third: Competition is not the life of trade, but coöperation is.

Walter C. Carroll, chairman of the Sheet Steel Simplification Board of Review, gave the report of that board. This report is published in full on page 65.

Bennett Chapple, of the American Rolling Mill Company, gave an address on "The Sheet Steel Home." This address also will be published in a later issue.

J. B. Roberts, Youngstown Sheet & Tube Company, spoke on "Has Hand to Mouth Buying Been Overdone?" This address will be published in a later issue.

Harry S. Rogers, director of sales and promotion of the Sheet Steel Trade Extension Committee, spoke on "Our Revised Plan of Action." This paper will be published in full.

Friday Session, May 6, 1927

The meeting was called to order at 10:15 by Chairman Schoedinger.

Chairman Schoedinger: The first discussion of the morning will get back to the original text, that is, "How Can the Distribution of Sheet Metals Be Made More Profitable?"

William Donlevy discussed the subject as follows: "The question is easy to ask and difficult to answer. Everything is being delivered—hardware, metals, electric goods, sporting goods, groceries, etc. As to the condition existing in Philadelphia regarding motor truck deliveries it cannot be overcome except by restriction or confining it to present bounds.

"At a recent meeting as every gentleman present had expressed himself and related his experience we found that deliveries were being made as far as 40, 50 and 60 miles from Philadelphia, sometimes weekly, sometimes bi-weekly and monthly and in one or two instances deliveries were being made by Philadelphia concerns as far as Long Island City, New York. There is no reason for this except that the Philadelphians feel the New York concerns are taking orders in their territory, so they can do likewise. Seriously speaking, gentlemen, I know of no remedy that will overcome it. Personally I do not know why wholesalers should compete out of their territories. We are giving service people don't ask for, forcing something on them. I think we are governed by what our competitors do."

Mr. McBride made a motion to appoint a committee of five jobbers from different sections to attend the next meeting of the sheet association, empowering them to put the question of extra price to the mills as a body.

Mr. Lyon added an amendment to the motion. These words were added: "and any other matters that the committee may deem wise."

Continuing the discussion of the "Hand-to-Mouth Buying," A. M. Oppenheimer, President of the Apollo Steel Company, gave a very interesting talk. Summing up what he said: "We are producing less wealth in proportion to our invested capital and, therefore, we must be satisfied during the present days in the economic trend to take less return than we formerly obtained. We are having good times and in our opinion they are not going to be worse, but better all the time, until

such time as the world reaches a normal basis and we all hope that that will be soon."

Because of the absence of J. B. Roberts, W. L. Latta, manager of the Wheeling Steel Corporation, followed Mr. Oppenheimer.

Mr. Schoedinger, following additional discussion, named the committee that is to confer with the Association of National Sheet and Tin Plate Manufacturers: R. H. Lyons, chairman, F. J. McNieve, Carl Roth, W. T. Ryan and E. H. Hoffeld.

A committee to go to Washington to see the work that is being done in Mr. Hoover's office was appointed as follows: Robert H. Lyon, chairman, Mr. Wolfe and Mr. McHale.

The chairman of the Nominating Committee, E. H. Hoffeld, presented the following nominations: F. B. Black, H. B. Thompson, W. C. Carroll, F. A. Wilkening, F. A. Moeschl, E. P. Severn and A. W. Howe. The nominations were then closed and the secretary was instructed to cast one ballot for the candidates to serve on the committee of the Metal Branch.

Milwaukee Sheet Metal Men Hear M. S. George on Manufacture of Steel

As a feature of their regular monthly meeting, the Master Sheet Metal Contractor of Milwaukee enjoyed an illustrated lecture on the manufacture of steel by M. S. George, representative of the American Rolling Mill Company.

President A. Schumann presided at the meeting and there were fifteen members present.

Another feature of the meeting was the matter brought up for discussion by O. A. Hoffmann concerning contributions to the people in the flooded areas of the southern states. The money is to be collected by individual subscription, and a letter to this effect was immediately sent out to the membership urging immediate action. The regular attendance prize was included in the contribution.

Creating Overhead Exhaust System Requires Careful Study

System Employed to Introduce Fresh Air or to Discharge Dust, Objectionable Odors and Fumes

By O. W. KOTHE, Principal St. Louis Technical Institute

IN STOVE factories, shoe factories, as well as in hundreds of other types of factories, more and more exhaust systems are being installed to take away either the refuse or objectionable fumes. The design we show in this drawing is one gotten out by Mr. Raymond Ziener, of Quincy, Illinois, who has been doing very creditable work in all sorts of sheet metal design and drafting, and we think that his design here is well executed.

Observe with the fan we start with a 36-inch pipe and then the main section branches out in two divisions, forming a sort of a "U" the bottom of which is 24 inches in

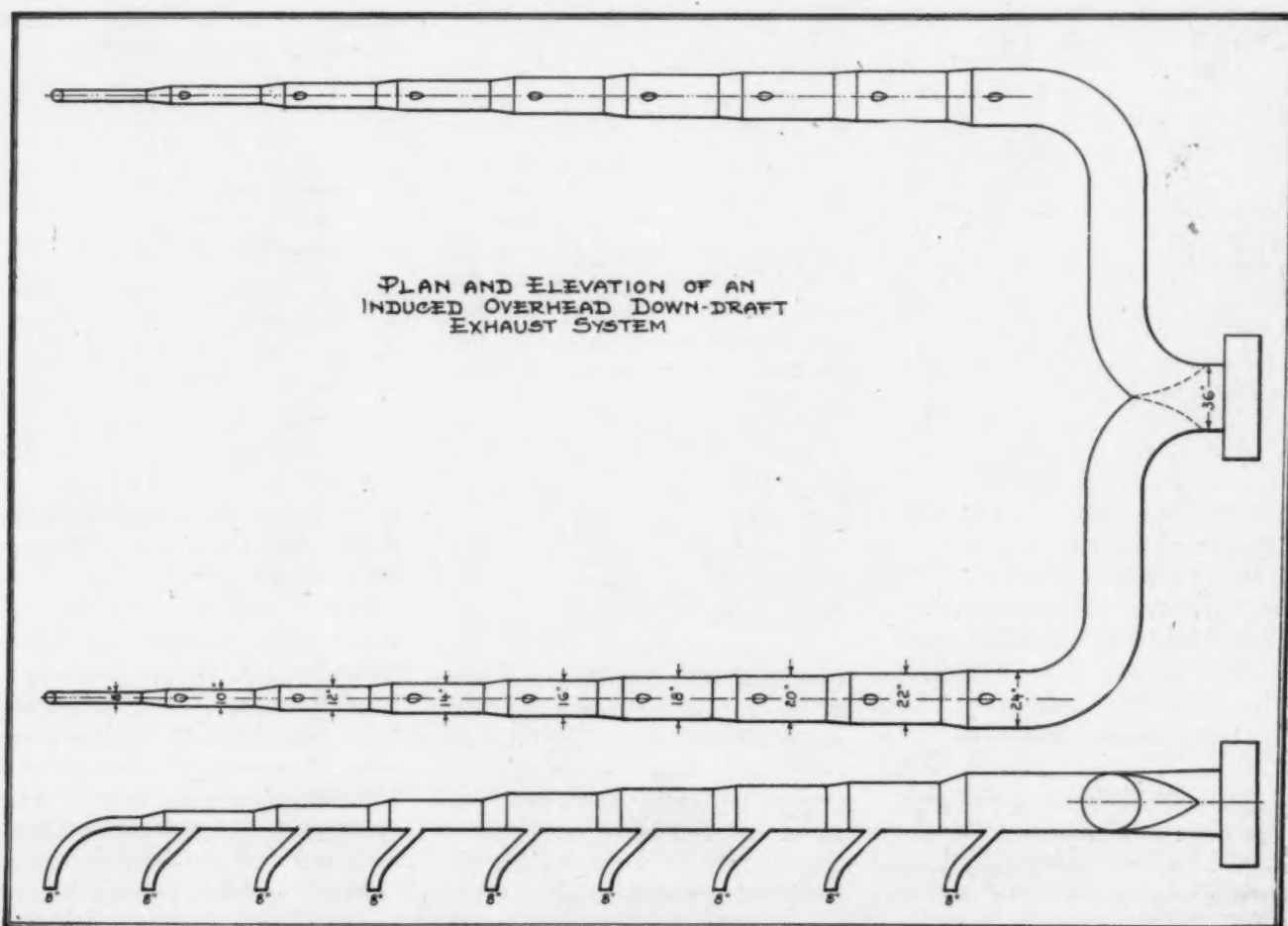
diameter; at given intervals 8-inch pipes are tapped in on an incline, as the sectional elevation shows at the bottom of our drawing.

This drawing also shows that the main pipe is level on the bottom, so that all reducers must be specially developed, so that they are flat on the bottom side. The tees also require developing in that the 8-inch tee must intersect many different sizes; for instance, the main pipe is reduced 2 inches in diameter with each 8-inch pipe intersection. This has a way of equalizing the area and carrying a suitable pressure or suction at the far end.

This system is called an overhead

down draft exhaust system and from that we would gather the piping is placed up close to the ceiling and the branch pipes lead down to certain machines or other appliances where the air is blown down and is possibly exhausted by other means of piping or openings where the air can escape.

These ventilating systems are used both in the blower and in the exhaust manner where fresh air is being brought to the workers at their machines or the refuse or foul air is being drawn through the fan and blown out. The work in hand must naturally govern the best system.



Sheet Buyers Must Conform to Simplification if Progress Is Not to Be Offset*

Production of Galvanized Sheets Increases 422,000 Tons in Last Four Years

By WALTER C. CARROLL

THIS brief report embraces a large amount of constructive work on the part of sheet steel manufacturers in correcting a situation, especially in certain states, which for a time threatened to break down the most important feature of our Sheet Steel Simplification Schedule.

I refer to the demand which, it was freely reported, could not be satisfied with anything better or anything heavier than 30-gauge galvanized roofing.

Believing it necessary to satisfy this demand, certain manufacturers shipped large tonnages of galvanized sheets, considerably lighter than 29-gauge, into the territory in question. A thorough analysis of the situation was made, and when the facts were presented to those manufacturers who were departing from the simplification schedule, they not only expressed their willingness, but were very happy to discontinue the practice, and I believe that subsequent developments have shown that an equal tonnage of roofing in heavier gauges is being bought today.

Unfortunately, a limited amount of light-weight roofing is still being shipped, but this has resulted from a delay in completing obligations.

However, a dangerous factor is still present, and it must be eliminated if we are to keep our promise to the Division of Simplified Practice, Department of Commerce, to use our best efforts to conform to the simplification schedule. It is the pressure which is brought to bear by certain buyers in the south-

west on sellers of roofing, in order that they may secure some advantage in price by having their roofing rolled on the light side.

No. 29-gauge, as you all know, should weigh 77 pounds per square, and the effort is to buy on the basis of 75 pounds. In other words, it is another way of securing a price advantage, inasmuch as the jobber buys by the pound and sells by area. Even if we were not making an effort to conform to the simplification schedule, a practice of this kind should be stamped out, for weight is a very important factor.

During the discussion which followed our report at Cincinnati last May, certain questions were asked concerning the tonnage of galvanized sheets produced annually and the relation which roofing bears to the total production.

The following figures have been prepared for the information of our membership:

In the year 1923, 941,000 net tons of galvanized sheets were produced. Of this total, 225,400 tons were roofing, or 24 per cent of the total galvanized tonnage.

In 1924, 1,110,000 tons of galvanized sheets were produced, 239,000 tons or 21½ per cent of which were roofing.

In 1925, 1,322,000 tons of galvanized sheets were produced, 280,000 tons or 21-10 per cent of which were roofing.

In 1926, 1,363,000 tons of galvanized sheets were produced, of which 287,000 tons of 21 per cent were roofing.

From the above figures you will observe that the production of galvanized sheets increased from 941,000 to 1,363,000 tons in four years. Roofing increased from 225,400 to 287,000 tons, but the percentage of roofing fell off from 24 to 21 per

cent in that same period.

Figures, unless they are of more than passing importance, are always tiresome, but the galvanized branch of the sheet steel industry is so closely tied in with our work on simplification that it may be of real interest to note that during the year 1926 more galvanized sheets were produced than the entire production of all sheet mill products in No. 13-gauge and lighter during the year 1913.

While figures are not available, it may safely be assumed that in the early days of the sheet steel roofing industry, 15 per cent of our entire production, or approximately 150,000 tons, were produced annually in the form of roofing. If we were not aware of the fact that general production has increased from 1,000,000 to 4,000,000 tons, we would congratulate ourselves on the gain made in roofing from 150,000 to 287,000 tons, but if we look the facts and figures squarely in the face, we must admit that there is a great opportunity to increase our sales of roofing.

Your committee, therefore, appeals to you to adhere to Simplification Schedule No. 28, to handle only full weight products, and to continue your efforts to educate the buyer to use only that quality, weight and standard of product which ultimately will be reflected in an increased demand.

Ralph Poe and Carl Sandberg, Canton, Illinois, Buy Stock of Robert Tyler

Robert W. Tyler, Canton, Illinois, has sold his sheet metal shop stock to Ralph W. Poe and Gus C. Sandberg, also sheet metal contractors of Canton, these two latter firms dividing the stock equally between them.

*Report of the Board of Review of Sheet Steel Simplification by Walter C. Carroll, Inland Steel Company, Chicago, Chairman, before the delegates to the Metal Branch meeting of the National Hardware Association of the United States in the Hotel Cleveland, Cleveland, Ohio, May 5 and 6, 1927.

Random Notes and Sketches

By Sidney Arnold

"The essence of humor is sensibility; warm, tender fellow-feeling with all forms of existence."—Carlyle.

While in Indianapolis last week, I had the extreme pleasure of being introduced to and entertained by Mr. and Mrs. Edward A. Gardner, son and daughter-in-law of Joseph C. Gardner, Past President of both the Indiana Sheet Metal Contractors' Association and of the National Association of Sheet Metal Contractors.

After the banquet and other "doings" at the hotel were over on Thursday evening, the younger Gardners took Mrs. Sidney and myself for a ride about the city's beautiful boulevards. This was followed by a dance or two, with refreshments, at the Columbia Club, and then out to their home, where we visited until the wee small hours of the morning before returning to our hotel.

Mr. Gardner, like his father, Joseph C., has an extremely pleasing personality, while his wife is at once charming and fascinating, and we enjoyed the hospitality which they extended to us very much indeed.

It is always a distinct pleasure to me to go to Indiana to attend the affairs of the sheet metal and warm air heating contractors of that state.

They are all imbued with a spirit of friendliness and hospitality that is most enjoyable and I appreciate it very much indeed. The memory of my visits there are a perpetual source of joy to me.

Before leaving the subject of the Gardners, however, I want to say something about a certain well in the center of the basement of the new Gardner sheet metal shop. You know, Mr. Gardner, Sr., likes to make believe that he does not know what to do with this well in his basement, as, of course, any true son of the sheet metal business has very little use for water, except for cleansing purposes either at home or at a convention. But Mr. Gardner, Jr., says that is just a stall, as they have already established a very definite purpose for this well. In order to find out what that purpose is, you will have to make a visit to the shop yourself.

* * *

Speaking of getting other people's goats, I have heard of lots of folks who had unwittingly gotten the goats of some of their friends, but

until I received these photos from Jules Gerock, Jr., I never knew that anybody had to go out and buy "goats" in order to get them. But here's the evidence.

The pictures were taken in San Antonio, Texas. The one shows Frank T. Bokern, St. Louis, bargaining with a Mexican for his goat. Perhaps herein is a suggestion for our honorable president, Calvin Coolidge. The Mexican is seen standing beside Mr. Bokern, who is pointing toward the goats with one hand, while holding the mazuma with the other. The three men holding the goats (reading from left to right) are Rudy Meier, Jules Gerock, Jr., and Ben. Kolbensschlag.

The goats were crated and shipped to St. Louis. Jules said he is going to employ his as a lawn mower. Rudy's will dispose of the old gutters and downspouts as these accumulate in his back yard.

These four men and their wives made a real event of the Dallas convention, in spite of the flood. They spent several days in Houston, Texas, and Galveston. From there they went to New Orleans and on up to Little Rock, Hot Springs and Memphis. They arrived home about the 10th of May.



Left—St. Louis Out Goat-Getting, Rudy Meier, Jules Gerock, Jr., Ben. Kolbensschlag, Mexican Goat Owner and John T. Bokern. Right—The St. Louis Quartette Getting Their Shoes Shined in the Old-Fashioned Way

The Editor's Page

University of Illinois Circular No. 15 Now Off Press

WARM air furnace manufacturers, jobbers, installers and salesmen who attended the Cleveland meeting of the National Warm Air Heating and Ventilating Association, and the heating men who attended the furnace session of Indiana Sheet Metal Contractors' convention in Indianapolis last week were treated to an illustrated lecture by Vincent S. Day, Special Research Associate Professor of the University of Illinois on the University of Illinois Circular No. 15.

This Circular No. 15, for the benefit of those furnace men who did not hear the lectures mentioned, treats exclusively with the results obtained from the warm air heating research residence in zero weather; namely, January 13th, 14th and 15th, 1927, a period in which warm air furnace performance data were "secured under the worst weather or load conditions," according to Professor Day.

The conclusions that are drawn from this research data by Professor Day, and which appear at the end of the treatise, are of extreme value to the entire warm air heating industry, particularly the furnace installers who are coming in constant contact with the public. These conclusions are as follows:

(a) A good degree of uniformity of temperature between the various rooms can be obtained with a well-designed warm air heating system.

(b) Moderate temperatures at the registers, 135 degrees F. in this case in the coldest weather, are characteristic of a well-designed warm air heating system.

(c) The rapid turnover of the air contents of the house, combined with the admixture of fresh air, constitutes a valuable ventilation feature of warm air heating.

(d) High over-all efficiencies can be obtained with a warm air heating system; in this case the net loss of heat from the chimney was 11 per cent.

(e) Satisfactory relative humidity can be obtained with a warm air heating system.

Here you have, for the first time since the research work was begun in October, 1918, the University of Illinois making statements regarding the performance of the warm air heating system that are invaluable from an advertising standpoint. Here is something definite and concrete from the university itself with which the prospective purchaser of a warm air heating system can be approached.

This Circular No. 15 is now off the university press. If you have not already filed an application for a copy of this circular with the Secretary of the National Warm Air Heating & Ventilating Association, you should do so without further delay. Write at once to Secretary

Allen W. Williams, 174 East Long Avenue, Columbus, Ohio, requesting a copy of the University of Illinois Circular No. 15. Bear in mind, however, that these requests should be made through the secretary's office of the National Warm Air Heating and Ventilating Association and *not* to the University of Illinois direct. The university has no facilities for filling these requests.

Association Again Proves Its Merit

NOTABLE among the occurrences in the sheet metal and warm air heating industries last week was the appointment of committees by the Indiana Sheet Metal Contractors and the Indiana Warm Air Heating and Ventilating Association for the purpose of consolidating their organizations into one unified body.

These men are to be commended for their endeavor to bring order out of chaos within their own state. The different factions in the state of Indiana have apparently been working at cross purposes for some time back without getting anywhere. In making this move to bring the two major organizations of the state together, they have shown that they realize that they are only cutting their own noses to spite their faces in carrying on the way they have been.

The situation with regard to the Indianapolis factions and their difficulties has also been cleared up to a point where the Indianapolis Sheet Metal Contractors are willing to go into the state organization and work with it. Both organizations are exceedingly fortunate in this turn of events. Each has something to give the other, and each will profit immeasurably by their association together.

This turn of events certainly puts an encouraging light on the association affairs in the state of Indiana, and proves the efficacy of an associated body to bring men together for the purpose of ironing out their difficulties without disrupting the even trend of activities within the building industry.

Let us hope that the committee which the two major Indiana organizations have appointed to perfect the basis upon which the consolidation can be permanently effected will be successful in finding a meeting ground. Each organization will, of course, have to sacrifice something, but what they will gain in doing so will far outweigh what they lose.

Don't forget the June 1 and 2 meeting of the Western Warm Air Furnace & Supply Association, which is to be held in Peoria, Illinois. This meeting will be of an educational nature, to which warm air furnace manufacturers, jobbers, dealers and salesmen are invited. See page 72 this issue for program of events as they will occur.

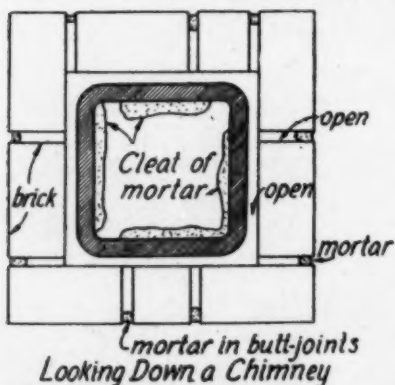
Experience Proves Chimney Offending Member in Many Heating Plants

External Appearances Oftimes Deceiving in Brick and Tile Chimney Construction

By SAMUEL R. LEWIS

CHIMNEYS have been required ever since the first unconventional genius conceived the idea of setting his tepee over the family bonfire. A hole in the top of the tepee or tent or snowhouse or cave did well enough as long as we used an open fireplace and were not very particular as to smarting eyes.

The chimney from an open fireplace as in a cabin or hut does not



get very hot, the products of combustion being diluted with a lot of air which insistently and continually persists in joining the products of combustion in their outward journey. Therefore, for such fireplaces the chimney did not have to be very tight nor very tall. It was often made out of small billets of wood, laid criss-cross and plastered up with mud.

I remember Civil War pictures showing the winter quarters of the army in huts having log sides and canvas roofs, with chimneys made of barrels standing end on end, presumably plastered-up inside with mud.

I have made an admirable emergency chimney extension myself with an old steel barrel, knocking in the heads with an axe.

The original fireplace, beautiful and romantic as it was, was wasteful of fuel, roasted one's exposed facade while permitting one's shel-

tered facade to freeze, and was no sort of heating apparatus to leave overnight unless one had a stone or a dirt floor. Benjamin Franklin started improvements by enclosing the fireplace in cast iron and began to take advantage of the convection effect formerly largely wasted. I remember seeing as a boy, a wonderful new Baltimore heater, compounded of cast iron and isinglass, filling the former open maw of a fireplace, and burning anthracite much after the principle of the old baseburner. This must have been a grandson of Mr. Franklin's stove.

These improved heaters required more draft and as the products of combustion were concentrated, the chimney became hot, and houses began to burn down, and I suppose along about then, chimney linings came into vogue.

It is popularly believed that a tile chimney lining is a good device. It is supposed that its fireproof, airtight, impervious construction will end all danger of fire and all question as to tightness of flue.

The first tile works which built a flue lining probably adapted some other kind of drain or building tile mold to the purpose, and since then all makers of tile flue linings have copied the original without any improvements.

The flue linings usually are rectangular, and their outside dimensions are presumably such as to permit laying standard brick around them without cutting. Thus a 12" x 12" tile is about 1 1/4" thick and the flue space is about 9 1/2" x 9 1/2".

This trade custom has deluded many a trusting and ignorant soul.

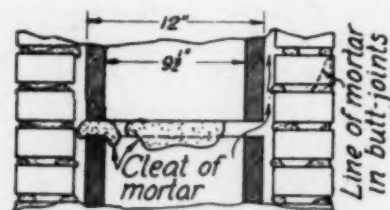
The ends of the tile flue linings, as far as I can learn, are severely plain, thus contributing to economy of molding, and to ease in handling

and to facility in laying brick around them.

Our tile friends, in addition to making flue linings, make pipe out of the same or similar vitreous materials, for carrying and confining liquids.

They do not, however, in this case fail to omit a deep commodious bell joint or hub, into which the plain end of the succeeding section of tile may be imbedded, and which commodious packing-space is caulked with cement or an elastic bituminous compound to make it (the drain) perfectly tight. The plain end is carefully fitted to the bell-end so as to discourage any projection into the drain of caulking material which would start an obstruction or interpose unnecessary resistance to the flow of the liquid.

When it comes to furnishing and building a flue lining, a service at least equally as important and nec-



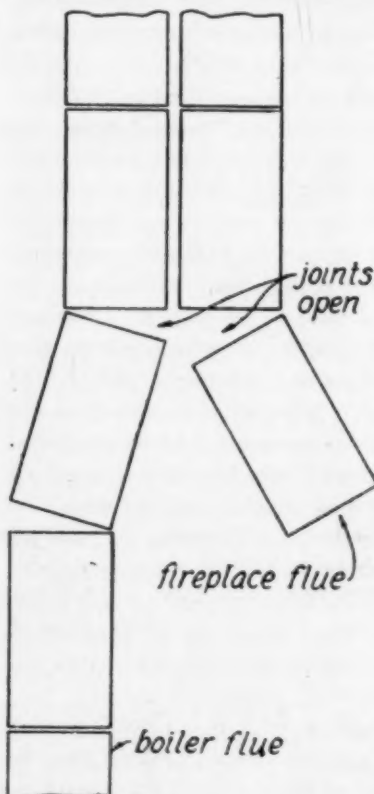
Vertical Section of Typical Flue

essary as a drain, the technique is different, oh! woefully different from the drainage technique. Yet a leaky chimney can cause destruction of the house and the death of its occupants, and will cause waste of fuel and under-heating, and dissatisfaction and unhappiness.

The brick mason usually builds a few feet of wall around the hole which presently will be the chimney. He may butter a little mortar on the horizontal joints before laying the brick thereon, and will dab a little triangular pat of mortar on the outside of the end joint as he lays each

brick. See sketch No. 1 showing a plan view, looking down the chimney.

There are almost always voids extending nearly through the thickness of the wall at the butt joints. Having laid up these two or three feet, he yells to Mose to "bring on that flue lining." His servitor appearing with a joint of tile in his arms, they shove it down around the hole, and butt joint with the suc-



Elevation of the two tile flue linings in the house described

ceeding section being three feet down a dark well. Usually the butt joint is dry, and open from half an inch to an inch, held apart by a chip of brick or a lump of hardened mortar. This is shown in sketch No. 2.

It is not practicable to point up the joint from the inside, the hole being small and the joint far down the dark interior. If the mason is especially conscientious and has well buttered the top of the next lowest section of tile, the new accretion, of considerable weight, with the mason and Mose both shoving and working it to place, squeezes this mortar out into the hole like a plaster cleat,

reducing the flue area often as much as an inch all around, cutting, in the case of a 12"x12" lining, the cross-section of the interior hole from 90.25 sq. in. to 56.25 sq. in. These figures are not exaggerated, but are from actual measurements and I can show them to you in a Chicago apartment house.

I had a friend who had a fine brick house. In the charming living room of this house was a fireplace of fairly intelligent design. You know fireplaces have to be designed skillfully, and must come within certain well defined metes and bounds, or they will assuredly not serve as fireplaces.

In this case the throat and shelf and reverse pocket and rating of face area to flue area and overhang were all reasonable. Still it belched and back-fired and blackened the walls and mired the rugs and was an obscenity. Its flue was a commercial 8"x12" tile alongside a 12"x12" tile flue which served the boiler. The boiler worked none too well. The flue was in an outside wall, with 4" of common brick and 4" of beautiful tapestry pressed brick outside of it, and was fully fifty feet high.

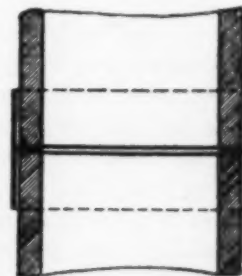
What to do! What to do!

I borrowed an extension ladder, risked my neck and covered the top of the boiler flue with a piece of burlap and a board to hold it down. Then post haste to the basement and built a little bon-fire of shavings at the cleanout door in the boiler flue. The fire blazed merrily and no smoke emerged into the basement. Hurry to the yard to see where it goes! Behold, it boils cheerily out of the adjacent chimney devoted to the fireplace! All right, again up the ladder and stop up both flues!

Here is a list of places where smoke then appeared:

1. Through seven butt joints between bricks in the unplastered basement walls of the chimney.
2. Through the fireplace in considerable volume.
3. Through the inevitable expansion-joint where the wooden mantel abutted on the plaster.
4. Through countless butt joints in

the brick, all the way up the outside of the building opposite the flue. These were small, but upon close examination indicated leakages up to $\frac{1}{8}$ " in diameter usually at the tops of the butt-joints where the triangular



Metal Sleeve loose enough to give packing space and light enough to bend when deflection is necessary

dabs of mortar were thin and where they dried out quickly.

5. Around a first story wooden window frame eight feet away from the chimney. Apparently the smoke followed the unslushed crack between the courses of brick.
6. Through butt-joints in the brickwork in the attic where the wall was not plastered.

We tore the chimney down, and found a first quality tile flue lining for each chimney, loosely threaded around the two chimney holes with most of the butt-joints between succeeding sections of lining dry and open and immaculate as far as any suspicion of pointing up was concerned. Occasional contacts between lining and brick wall occurred, but the crack here, which certainly should have been slushed up full of mortar, course by course as the brick were laid around each previously erected section of tile, was an open void, and in general practice is usually an open void. Sketch No. 3 indicates the joints in the flue lining at off-sets.

The answer is obvious: first, that we must have a joint for these flue tiles equal to or approaching in efficiency the bell and spigot joint of the drain tile.

It is admittedly possible, with close supervision of masons, to se-

cure a fairly satisfactory chimney with the present joint, but such a result is unlikely. Each joint must be buttered, and the projecting cleat must be wiped off before it sets.

I suggest a metal slip-joint, preferably of bronze or similar metal resistant of corrosion furnished with and attached to each section of tile, by the manufacturer, this metal sleeve serving the function of the earthenware bell and avoiding the difficult hump in the brick wall which the bell would involve. Such a sleeve, even if set dry, would reduce the leakage very materially, and it is probable that if a poster was glued to each section of lining,

carrying instructions for slushing of the joints, some compliance could be expected. See Sketch No. 4.

Above all, every person having to do with the flue linings, especially the architects and the mason contractors and the general contractors should see that the chimney hole is surrounded by a tile and that the tile is surrounded by a mortar filling between it and the brick, and that the brick joints around the chimney are slushed or grouted full of soft mortar at every course.

Where offsets or angles occur, the joints should be ground on a bevel so as to be as nearly tight as are the ordinary straight joints.

"Furnace Salesman" Has Three Questions to Ask Furnace Manufacturers

Thinks Conservative, Good Credit Risk Dealer Should Be Given Best Price Possible

YOU have me all wrong in your editorial of April 30th, written in reply to an article I wrote in your April 23rd issue in which reference was made to the "sliding scale" in the furnace manufacturer's prices.

You have pictured me as one expressing displeasure with their methods of pricing and "all wet." Sorry to have you misunderstand me. Anything I write at any time is not in the nature of complaint or an expression of displeasure, but rather I seek information and enlightenment, not alone for myself, but others engaged in the same business.

It used to be that the hardest competition in the furnace business was the small dealer who didn't know about overhead expense. Now this same dealer has been properly educated along the lines of overhead, and when he adds his overhead and a fair profit to his cost, he has a hard time to get a "new house job" at a fair price.

Your explanations as to why a dealer buying furnaces in less than carload lots should pay more for

his furnaces than the dealer buying in carload lots, is fully understood by me, and if there was anyone that needed this explanation they will be benefited thereby, and as far as I am concerned there is no harm done.

Please refer again to my letter of April 12th, 1927, and note the type of dealer I was writing about:

"Conservative in buying, not trying to do all the work in town, hates to get into the large volume and 'cut-price' class, wants to do first-class work and get a fair price, not too high, but enough so that he can pay the manufacturer's bill when due."

From the method he uses as described in the illustration of his trouble to land new house work, it is plain to see that he goes after this type of work and does not wait for it to come to him.

In connection with old house work it is plain to see that he is again on the job, for in my letter I wrote:

"Old house work, such as replace jobs, are different than new house work, because the different dealers are afforded more of an opportunity of dealing direct with the owner,

without so much outside interference, and on these jobs salesmanship and the reputation of the installer and his furnace is more of a factor than price."

Now, then, it is easy for anyone to see plainly that this type of dealer is a carload dealer, a good credit risk, a credit to the business in which he is engaged, and a dealer that is trying to give his customers first-class installations, but finds it hard to get a price in conformity with a Standard Code installation, on new house work.

He is between the "less carload" dealer and the "large volume, and the cut-price" dealer. In my letter I was comparing "a dealer buying 100 furnaces or over with a dealer buying 25 to 50 furnaces per year," which would mean that both are carload buyers. In the letter, however, I did mention "carload and less than carload lots of fittings," and possibly that is what led you to believe that I did not understand why a less than carload dealer should pay more for furnaces than the carload dealer.

Now, in conclusion, if you will now explain:

(1) Why the dealer which I have described has to pay more for his furnaces than the "large volume and cut-price" dealer?

(2) Why it is not good business to give the type of dealer I have described the best price that exists?

(3) Why by giving this dealer the best price possible, thus starting these two types of dealers off on an equal footing, it would have no effect whatever on a better type of furnace installation generally? I will be more satisfied with your explanation.

We would like very much to see some furnace manufacturer answer these questions for "Furnace Installer" and set him right on them.

**Who Manufactures
Nash Sprinkler
System for Furnaces?**

TO AMERICAN ARTISAN:

Please advise who the manufacturers are of the Nash Sprinkler System for furnaces.

FROM A SUBSCRIBER.

Tying Up With the Natl. W. A. H. & V. Ass'n Advertising Campaign*

Must First See That Indiana Public Gets Service That Is Advertised

By GEORGE J. DUERR

HOW CAN the Indiana Warm Air Heating and Ventilating Association tie up with the advertising campaign of the national association, is a question with which you men are confronted today.

The National Warm Air Heating and Ventilating Association, as you know, is spending a great deal of money on research work and some on advertising in certain national publications at the present time. As time goes on, this advertising will be increased. At the same time the association is trying to instill a sense of responsibility into as many of the furnace installers as possible. The main objective is, of course, to sell the national public on warm air heat, and at the same time make it possible for that public to get the kind of warm air heating service locally that it is advertising.

Therefore, if you men wish to capitalize on this advertising, and to cooperate in the development of the industry, your problem is clearly that of making the national advertising *specific*; that of informing the public of Indiana, once their interest has been aroused, where they can get the service they seek. This does not mean that you are only to broadcast selling talk, but to see to it that the Indiana public *gets the service*. For, there is little to be gained by praising the superior merits of a commodity which is not to be had on the local market.

You have all experienced a sense of indignation when you enter a local store and ask for some nationally advertised article, only to be told that the article which you seek is not carried in stock. The same is

also true of the commodity, Standard Furnace Code Installation.

You can render the greatest service to the warm air heating industry at this time by seeing to it that the Indiana public can get the warm air heating service advertised by the National Warm Air Heating & Ventilating Association. You should seek to learn whether this high type service is available to the Indiana public in general.

With a strong organization like that represented by you men here assembled today, pledged to the high ideals of service, such as you are, there is no goal of service that you cannot gain. In view of the short time the organization has been in existence, its record of accomplishments is something of which you men can be proud.

It is very plain that before you can hope to get very far with the advertising, you must put the distribution end of the business on a self-respecting basis.

By way of illustration, suppose that you had your interest aroused, by national advertising, to the comfort, convenience and economy of owning an automobile. You then set out to find an automobile dealer who handles the particular make of car that you have selected, where you can see the car, sit in it, try it out. Suppose, then, instead of finding the well-appointed sales room that the general tone of the advertisement had led you to expect, you enter a dingy hole in the wall on a side street. There is junk piled high on all sides. The proprietor greets you in soiled dungeries and what is worse, with an attempt at a convincing sales approach.

What is your reaction? Does not your confidence in what make of car disappear at once? Are you not

immediately prejudiced against not only that individual dealer, but against the manufacturers whom he represents? Exactly the same thing is true in the warm air heating industry.

Therefore, if you want to be of the greatest service to the national association, and receive the greatest benefit from its publicity, take measures within your own organization to see to it that the warm air furnace installers in the state of Indiana who have signed the Code pledge cards actually live up to that pledge.

"The national association is no longer sending the inquiries from its advertising direct to dealers," says Mr. Arny. "Experience has proven that these inquiries have not been followed through as carefully as they should be, for which reason they are now being sent only to members of the association, who, in turn, send them to their code dealers. In this way the inquiry is checked by the salesman and also by the member's dealer."

To assist in checking up on dealers it would be well to appoint a board of review chosen by your organization. It is your aim, I am sure if this is not already the case, to have the Indiana Warm Air Heating & Ventilating Association represented by one or more members in every city within your state borders. At the present time I believe your association is represented in practically every locality by at least one member.

These warm air heating men are of the highest calibre. They have proven this by their willingness to cooperate with others in the work which you have already done collectively. They form the skeleton around which a complete state-wide organization can be formed to

*Address delivered before the delegates to the convention of the Indiana Warm Air Heating and Ventilating Association held at the Hotel Severin, Indianapolis, May 4, 5 and 6, 1927.

spread the gospel of the Standard Code among the furnace installers who have not yet seen the light. They are the ones who should give the board of review the information it needs on the class of work the installers in their several localities are doing, in order that the board of review can determine whether they are capable of taking and willing to take the education that will be required to make them authorized Standard Code installers and business men.

If your organization can take the responsibility of doing work of this kind, it would be of inestimable value to the industry. With such a machine in operation on the scene of action, the time would not be far distant when the Standard Furnace Code and its symbol on the window of a furnace installer would mean something to the public.

It is important to note in this connection that the Code pledge has been changed since the last convention of the association. There is now no qualifying phrase in the pledge. A dealer who signs the card pledges himself to "make all possible installations in accordance with the Standard Code."

A Code dealer should display the emblem. He should have in his possession association material to distribute to prospects. This includes a consumer book describing the advantages of warm air heating, copies of the Standard Code, Standard Code blotters for direct mail work, and folders for letter enclosures. All of this material should be obtained from the manufacturer which the dealer represents.

Think how much easier the work of the national association would be if the warm air furnace installers in every state would organize as you men have done, so that the national body could turn much of its work over to the men who are right on the scene of action. Under those circumstances, the interests of the industry would be well taken care of. After all, the entire industry has a common goal, why not take a common responsibility?

There is still a tremendous

amount of missionary work to be done, and no one to do it but you men in coöperation with the trade papers.

If the national advertising campaign is going to mean anything to the industry in a permanent way, the backward or indifferent installers have got to be awakened to the true situation as it is viewed from

the standpoint of the public. They must be shown why and how, and if you men really want to know how you and your organization can tie up with the national advertising campaign, let me suggest that you can do so in no better way than to take measures to get this missionary work done as quickly as it is possible to do it.

Western Warm Air Furnace & Supply Ass'n to Meet in Peoria

All Phases of Industry to Be Reviewed—Meeting to Be Educational

HERE is the program of the Western Warm Air Furnace and Supply Association meeting, which will take place at Peoria, Illinois, June 1 and 2.

Wednesday, June 1st

9:30 a. m.—

Registration, badges, banquet tickets.

Call to order, J. Harvey Manny, president, Western Warm Air Furnace and Supply Association.



Welcome to Peoria, Mayor Louis Mueller.

Reports of the secretary and committees of the Western Warm Air Furnace and Supply Association.

Start Something Hour—this hour made famous in the industry by this association because so many new suggestions beneficial to the industry having originated during this hour.

1:30—

Report of Publicity Committee, R. C. Walker, chairman.

Representing the dealers, Jack Stowell, Aurora, Illinois.

Representing the manufacturers, E. C. "Buck" Taylor, Dowagiac, Michigan.

Representing the travelers, J. M. Oliphant, Indianapolis.

Representing the publicity division of the National Warm Air Heating and Ventilating Association, L. Wayne Army, director public relations.

"Progress of Scientific Research With Relation to the Warm Air Heating Industry," Prof. V. S. Day, research associate professor, Department Mechanical Engineering, University of Illinois.

Discussions and questions.

6:30—

Banquet; orchestra.

Community singing; Ros Strong, leader.

Speakers of the evening: Hon. Tom Pearson, London, famous lecture, "Evolution." Dr. B. J. Palmer of WOC, Davenport, Iowa; subject, "Selling Yourself."

Thursday, June 2nd

"Fans and Furnaces," J. C. Miles, Cleveland, Ohio.

"Fitting the Fan to the Furnace," R. W. Menk, Chicago, Illinois.

"A Flexible Warm Air Heating System," Chas. L. Bennett, Cleveland, Ohio.

"Warm Air, the Cleaner Heat," G. L. Van Arsdale, Louisville, Kentucky.

Adjournment for lunch.

"Trouble Shooting in Domestic Heating Plants," J. T. Vollbrecht, Michigan City, Indiana.

"Window Display, Advertising and Merchandising," Mat Friedman, Chicago, Illinois.

"Progressive Merchandising and the Code," John S. Walker, National Heatcraft Institute, Peoria, Illinois.

"Accounting and Collections," F. G. Bruninga, Peoria, Illinois.

The Publicity Committee—R. C. Walker, Sam P. Burgess, and Miss Etta Cohn—have had charge of the program arrangements.

Abram Cox Turns Down Order for 250 Furnaces Because Installer's Prices too Low

The Abram Cox Company has moved their Chicago office from 736-738 West Monroe Street, to 2911 South LaSalle Street, into new and more up-to-date space, alongside of trackage, according to George G. Fischer, manager.

Mr. Fischer goes on to say:

"In your April 23rd issue we note that you report the proceedings of the meeting of the National Warm Air Heating and Ventilating Association at Cleveland, and our interest and attention was especially attracted to the statement made by our able friend, Buck Taylor, that his firm rejected an order for a carload of furnaces from a furnace dealer, because said dealer was known to install his furnaces mainly on competitive price bases, irrespective as to whether the result to the home owner was satisfactory. The sale was made on price by the dealer to owner, and not on satisfactory results.

"We recently had a similar experience with a heating contractor who gave our salesman a signed order for two hundred and fifty heaters, at a price that most of the furnace manufacturers would have been most eager to accept. But we turned the order for the heaters down, because, upon investigation we learned that the dealer was installing his heaters at prices that indicated cheapest manner of material

and installation, and would have resulted in poor reflection, not only on ourselves as the manufacturer of the furnaces sold to this particular dealer, but to the heating trade in general.

"This dealer *advertised* to install heating jobs at prices so low that it aroused our interest, and upon a survey and investigation, of the methods and character of inferior work furnished, we returned the order. The dealer's credit rating was ample for more than the amount, as he always discounted his invoices in the past."

LaLance & Grosjean Mfg. Co. Discontinue Chicago Warehouse

La Lance & Grosjean Manufacturing Company is discontinuing its Chicago warehouse and accounting department and will ship direct to all customers from the factory at Woodhaven, Long Island. All communications should be sent to P. O. Box 51, Woodhaven, Long Island.

The new Chicago sales office of the company is located in room 1204 Union Trust Building, corner West Madison and South Dearborn Streets, and is under the direction of Frank Burch.

Indiana Fur-Mets Elects Tommy Thompson President

The Indiana Fur-Mets held its annual meeting at the Hotel Severin, Indianapolis, on Friday, May 6. At the opening proceedings the election of officers was held.

President, Russell S. (Tommy) Thompson, Indianapolis.

Vice-President, Creston Barnes, Kokomo.

Second Vice-President, F. E. Wilkening, Indianapolis.

Third Vice-President, Harry Miley.

Fourth Vice-President, Fred Heads, Chicago.

Secretary, Harry Jones, Indianapolis.

Treasurer, John C. Henley, Indianapolis.

The board of directors is made up

as follows: O. Voorhees, Indianapolis; Paul Jordan, Indianapolis; Harry Neal, Indianapolis; Harry Beaman, Zionsville.

The membership committee was made up as follows: C. L. Sapp, C. M. Fulton, E. C. Carter and G. J. Duerr.

One of the delights of the Indiana convention was the banquet. And one of the delights of the banquet was the address by my old friend and fraternity brother, Dr. Otto von Dinkelspiel, Professor of Ethopics of the University of Teidlberg, and at one time the right hand man of Chancellor Tismarck of Vermany.

I was certain that I had a photo of the great professor as I knew him in Vermany, before I had discovered the greater advantages which the American continent had to offer me. So I set about digging down into the musty files of our "Morgue" and much to my joy my search was rewarded with the photo I herewith present for your perusal and edification. I am sure, after showing this photo, that the next time Dr. Dinkelspiel is invited to this country to speak before the warm air heating men, they will all honor him with their presence at least during his address.



Dr. Otto von Dinkelspiel,
Professor of Ethopics, Teidlberg University

Warm Air Furnace Fan to Hold Second Engineering School, June 13-25

Hotel Allerton, Cleveland, Will Be Headquarters of School—Large Registration Expected

THE Warm Air Furnace Fan Company, 6511 Cedar Avenue, Cleveland, Ohio, has announced its intention to hold its second engineering school at Cleveland from June 13 to 25 in the Allerton Hotel.

According to J. C. Miles, vice president of the company, this course will incorporate Elementary Physics, Combustion, General Outline of Scientific Heating and Ventilating, Steam Heating, Hot Water Heating, Gravity Warm Air Furnace Heating, Standard Code, Forced Air Heating and Ventilating, including Straight Blast, Booster and Combination Heating and Ventilating.

This course will also include actual drawing board and practical design practice and experience. There will also be considerable attention paid to sales engineering, which will include suggestions as to what extent it is advisable to use technical points in making sales to each prospect; the advisable method of interesting furnace dealers in the scientific calculation of their jobs, also how assistance may be given the dealer or architect that will be helpful to him in laying out heating systems. In short, all of the phases necessary to design, engineer and install a warm air furnace system will be thoroughly covered, and the very best authorities will be used as reference.

There will be lecture courses on all the different phases given by noted and reputable men in their particular lines.

Arrangements have been made with the Hotel Allerton Company for very reasonable rates for rooms. These rates will range from \$10.50 to \$20.00 per week.

It may also be interesting to note that the expense of this school is borne entirely by the Warm Air Furnace Fan Company, with the exception of the necessary drawing

board and tools the student will purchase on his arrival in Cleveland, also at a very low figure.

Those who attended the first course found it very profitable for them. Early reservation will insure you against the annoyance and inconvenience of finding accommodations after you reach Cleveland.

C. Francis Beatty, New Jersey Zinc, Joins the F. J. Ross Advertising Agency

For the past nine years Mr. Beatty has been associated with the New Jersey Zinc Co., the first five in the sales department, the last four as advertising manager. Previously he was advertising manager for the Knox Hat Co.

Mr. Beatty joins the creative staff of the F. J. Ross Company as an account executive—the Ross Company being well known in paint and varnish circles as the agency directing the Save the Surface Campaign.

In addition to being an active factor in the paint and varnishing industry and a member of the American Zinc Institute, Mr. Beatty has been a member of the executive board of the Association of National Advertisers.

Old Guard Southern Hardware Salesmen Meet at Memphis

Forty-two Old Guard Southern Hardware Salesmen members were in attendance when the annual meeting of that association convened at Memphis, Tennessee, Hotel Peabody, this week. President F. Herbert Smith presided.

A splendid banquet preceded the meeting at which addresses were made by President Mark Lyons, of the Southern Hardware Jobbers' Association, and Lew Soule of *Hardware Age*.

A donation for the flood sufferers was called for, and the sum of \$650 was quickly subscribed. A check for this amount was turned over to the Red Cross at Memphis in the name of the Old Guard Southern Hardware Salesmen's Association.

The reports of the committees were heard and approved, and the usual business transacted, following which the officers were named for the coming year.

President, H. A. Dean; first vice-president, George H. Hillman; second vice-president, N. A. Gladding; secretary-treasurer, R. P. Boyd.

The Executive Committee was made up as follows: Thomas Parnell, Clyde L. King, James S. Bonbright, James M. Wood, Hugo Widemann, and James T. Skelly, chairman.

Miss Etta Cohn, *AMERICAN ARTISAN*, was elected to Honorary membership.

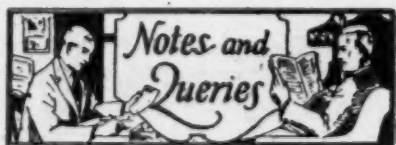


Western Warm Air Furnace & Supply Association, June 1 and 2, 1927, Peoria, Illinois. John H. Hussie, Secretary, 3624 La Fayette Avenue, Omaha, Nebraska.

Mississippi Retail Hardware and Implement Association Convention and Exhibition, headquarters, White House, Biloxi, June 13, 14, 15, 1927. Buy Nason, Secretary, Columbus.

National Retail Hardware Association Congress, Mackinac Island, Michigan, June, 1927. H. P. Sheets, Secretary-Treasurer, 130 East Washington Street, Indianapolis, Indiana.

Missouri Sheet Metal Contractors' Association at Sedalia, Missouri, July 12 and 13, 1927. Ben Kolbenschlag, 3618 North Grand Street, St. Louis, Secretary.

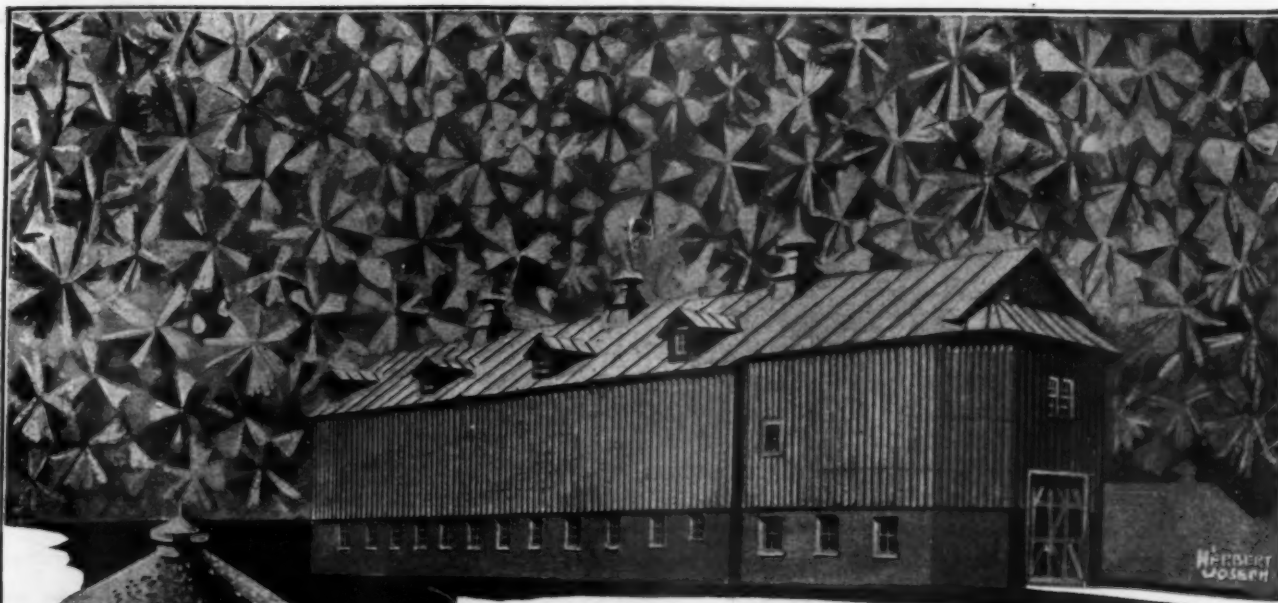


Gasoline Driven Lawn Mowers

From Ludwig's Sheet Metal Shop, Chillicothe, Illinois.

Please inform us where we can secure gasoline driven lawn mowers.

Ans.—The Ideal Power Lawn Mower Company, 11 East Harrison Street, Chicago, Illinois.



Increase Your Sheet Steel Business *Automatically*

Here is a simple formula for building up your business on sheet steel and products made of it:

1. Use the sales helps and leads offered by the Sheet Steel Trade Extension Committee, Oliver Building, Pittsburgh, Pa.
2. Sell or use only such makes of sheets as invariably render satisfactory service.
3. For roofing and exposed uses adhere to the Simplification Committee's recommendations of 28 gauge or heavier.
4. Whenever practical use the "TEC" Master Brand.

Sales or jobs that prove satisfactory automatically sell others. Sheet Steel thus grows in public esteem. You build up valuable good will for yourself.

Now, just a few words about Inland Sheets. They have been developed for ease of working in the shop and for satisfactory, enduring service on the job. They are soft, workable and uniform. The tenacious coatings are generous. Inspections are rigid.

INLAND STEEL COMPANY

38 South Dearborn Street, Chicago

Works: Indiana Harbor, Ind.; Milwaukee, Wis.; Chicago Heights, Ill.

Branch Offices and Representatives: St. Paul, St. Louis, Salt Lake City, Milwaukee, Kansas City, New Orleans, El Paso



Inland Copper Alloy for Exposed Uses

As a base for regular or Master Brand sheets demand "Inland Copper Alloy." The cost is but a fraction more. Inland Copper Alloy Steel Sheets are durable all the way through. They resist corrosion to a remarkable degree. You will like them. Your customers will too.

Contributing Member

SHEET STEEL
TRADE EXTENSION COMMITTEE

Production and Sales in Heavy Finished Steel Shows Further Decrease—Small Orders Principal Support

Demand for Nonferrous Metals Is Light—Pig Iron Market Steady

STEEL ingot production in April was unable to subdue the tradition of a decline beginning with the second quarter and fell off 5 per cent from March, but it did soar to a new pinnacle for April.

Statistics of production for steel, as for pig iron, reveal a robustness that is beclouded by hand-to-mouth buying. In each month since January more steel has been made than in the comparable month of last year, which is the record. With the year one-third gone, cumulative production of steel at 16,262,161 tons is only 1½ per cent under the similar period of 1926. Steel-making capacity thus far in the year has been engaged at 87.9 per cent; last year at 89.2.

Heavy finished steel has shown further shrinkage in both new business and production the past week, but no more than is to be expected for the season. In the absence of normal demand from major consumers, such as freight car and automobile manufacturers, the volume of steel being absorbed by the general run of industry appears the greater.

Business is better than the steady inflow of small orders from diversified sources indicates casually, as evidenced by the April ingot figures. The price situation in the heavy finished steel lines still tends toward easiness. Steelworks operations average 82 per cent, a loss of two points.

Pig Iron

At Pittsburgh, pig iron users are marking time, no large inquiries pending. One nearby user of basic was able to close two lots, one of 1,000 tons and the other 2,000 tons, at \$19.13 and \$19.25 delivered, respectively.

The iron is not coming from

valley furnaces and the sales are not criterions of that market since valley producers refused to go below \$18. The minimum they quoted on the inquiries was \$19.76, delivered. One user of bessemer iron has been quoted \$19 and \$19.50, valley, on his requirements.

Small lots up to 100 tons at a time were sold in the past week at \$19.50, valley, including one to a Pittsburgh district steelmaker. Foundry and malleable sales are limited to single carloads or 100 tons at \$18.50, valley.

Northern pig iron is untested at \$20, Chicago furnace, for No. 2 foundry and malleable. The market is almost devoid of important inquiry and spot buying is quiet. Shipments are at a fair rate, although a number of foundries in this district have reduced operations.

An Iroquois stack was lighted today, making five of the 10 merchant stacks in this district active.

Pig iron sales at Birmingham continue in small lots. The price is steady at \$18, base, Birmingham. No third quarter business is being considered. The surplus stock of iron is normal.

Tin

The light metal made one of its occasional flights the past week. The rise was spectacular, amounting to ½-cent or more within a single afternoon on some days. Spot supplies of metal are tight, but buying is not heavy and users are a little slow in taking deliveries.

Copper

Copper has sold at 13.00 cents, delivered Connecticut, and ⅛-cent to ¼-cent more delivered Middle West, in fair quantity after a period of dullness.

The price shows little change, but

it is firmer and some producers state that with a little more buying this week, quotations may be advanced. However, some close market observers are of the opinion there is not sufficient demand back of the market to send prices up far.

The rolling mills have continued to operate at a fairly high rate and unfilled orders are small. Prices, however, are steady on products.

Lead

Demand for lead continued light, but little change developed in prices. Some improvement is expected to develop until something definite in the way of production curtailment is effected.

Zinc

Despite the weaker statistical position of zinc, the market is expected to take a brace and at least hold.

Little pressure is being exerted in the market at the moment, producers being reluctant to sell at the current market level of 6.15 cents, East St. Louis, and consumes apparently covered on immediate requirements.

Solder

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$41.50; commercial 45-55, \$38.50; plumbers', \$35.50, all per 100 pounds.

Old Metals

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$16.50 to \$17.00; old iron axles, \$20.00 to \$20.50; steel springs, \$15.50 to \$16.00; No. 1 wrought iron, \$11.50 to \$12.00; No. 1 cast, \$14.75 to \$15.25, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; zinc, 4½ cents; cast aluminum, 15 cents.

A further DEMONSTRATION OF FIRE SAFETY



Photograph taken after fire test of Sheet Steel furniture on cement floor. Note that the furniture is undamaged.

A recent series of tests of office occupancy hazard were made by the U. S. Bureau of Standards during which both combustible furniture and Sheet Steel furniture were tested under various parallel conditions. As a result, the following conclusion was reached: that for the safety of office contents, the amount of combustible present must be kept down to the mere

papers and books which record the business transactions of the office, and that these should be stored in receptacles which will not burn and

which will prevent the easy access of air to their heated contents. This means Sheet Steel! For further details of the office occupancy hazard tests, write the SHEET STEEL TRADE EXTENSION COMMITTEE, OLIVER BUILDING, PITTSBURGH, PA.



This trade-mark stenciled on galvanized Sheet Steel is definite insurance to the buyer that every sheet so branded is of prime quality—full weight for the gauge stamped on the sheet—never less than 28 gauge—and that the galvanizing is of the full weight and quality established by the SHEET STEEL TRADE EXTENSION COMMITTEE specification.

SHEET STEEL

for Strength Safety Beauty and Economy

When writing mention AMERICAN ARTISAN—Thank you!

Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS

FIG IRON

Chicago Fdy., No. 2.....	\$20 00
Southern Fdy., No. 2.....	24 01
Lake Superior Charcoal.....	27 04
Malleable.....	20 00

FIRST QUALITY BRIGHT

TIN PLATES

IC 20x28 112 sheets.....	\$25 10
IX 20x28.....	29 60
IXX 20x28 56 sheets.....	16 20
IXXX 20x28.....	17 55
IXXXX 20x28.....	18 95

TERNE PLATES

IC 20x28, 40-lb. 112 sheets	\$26 00
IX 20x28, 40-lb. 112 sheets	28 50
IX 20x28, 25-lb. 112 sheets	21 75
IX 20x28, 25-lb. 112 sheets	24 25
IX 20x28, 20-lb. 112 sheets	20 00
IV 20x28, 20-lb. 112 sheets	22 50
IC 20x28, 15-lb. 112 sheets	18 50

"ARMCO" INGOT IRON PLATES

No. 8 ga. up to and including	
1/4 in.—100 lbs.	\$4 55

COKE PLATES

Cokes, 80 lbs., base, 20x28	\$13 60
Cokes, 90 lbs., base, 20x28	13 30
Cokes, 100 lbs., base, 20x28	14 00
Cokes, 107 lbs., base, 1c	
20x28.....	14 30
Cokes, 135 lbs., base IX	
20x28.....	16 40
Cokes, 155 lbs., base, 56	
sheets.....	9 20
Cokes, 175 lbs., base, 56	
sheets.....	10 05
Cokes, 195 lbs., base, 56	
sheets.....	10 90

BLUE ANNEALED SHEETS

Base 10 ga.....per 100 lbs.	\$3 50
"Armco" 16 ga.....per 100 lbs.	4 00

ONE PASS COLD ROLLED

BLACK

No. 18-20.....per 100 lbs.	\$3 75
No. 22.....per 100 lbs.	3 90
No. 24.....per 100 lbs.	3 95
No. 26.....per 100 lbs.	4 05
No. 27.....per 100 lbs.	4 10
No. 28.....per 100 lbs.	4 20
No. 29.....per 100 lbs.	4 35
No. 30.....per 100 lbs.	4 45

"ARMCO" GALVANIZED

"Armco" 24.....per 100 lbs.	\$6 15
-----------------------------	--------

GALVANIZED

No. 16.....per 100 lbs.	\$4 30
No. 18.....per 100 lbs.	4 45
No. 20.....per 100 lbs.	4 60
No. 22.....per 100 lbs.	4 65
No. 24.....per 100 lbs.	4 80
No. 26.....per 100 lbs.	5 05
No. 27.....per 100 lbs.	5 15
No. 28.....per 100 lbs.	5 30
No. 29.....per 100 lbs.	5 30
No. 30.....per 100 lbs.	5 70

BAR SOLDER

Warranted	
50-50.....per 100 lbs.	\$41 50
Commercial	
45-55.....per 100 lbs.	38 50
Plumbers.....per 100 lbs.	35 50

ZINC

In Slabs.....	\$8 50
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SHEET ZINC

Cash Lots (600 lbs.).....	\$11 75
Sheet Lots.....	12 75

BRASS

Sheets, Chicago base.....	18c
Mill Base.....	18c
Tubing, brazed base.....	27c
Wire, base.....	19c
Rods, base.....	16 1/4c

COPPER

Sheets, Chicago base.....	21 1/4c
Mill Base.....	20 1/4c
Tubing, seamless base.....	24 1/4c
Wire, No. 9, B & S Ga.....	17 1/4c
Wire, No. 10, B & S Ga.....	18c
Wire, No. 11, B & S Ga.....	18 1/4c
Wire, No. 8, B & S Ga. and	
heavier.....	17 1/4c

LEAD.

American Pig.....	\$7 40
Bar.....	8 40

Sheet

Full Coils.....per 100 lbs.	14 00
Cut Coils.....per 100 lbs.	14 25

TIN

Pig tin.....per 100 lbs.	\$75 00
Bar tin.....per 100 lbs.	76 00

HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

ASBESTOS

Paper up to 1/16.....	6c per lb.
Roll board.....	6 1/4c per lb.
Mill board 3/32 to 1/4.....	6c per lb.
Corrugated Paper (250	
sq. ft. to roll).....	\$6.00 per roll

BRUSHES

Hot Air Pipe Cleaning	
Bristle, with handle, each	\$0 25
Flue Cleaning	
Steel only, each.....	1 25

BURRS

Copper Burrs only.....	40-50c
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CEMENT, FURNACE

American Seal, 5-lb. cans, net	\$ 40
American Seal, 10-lb. cans, net	80
American Seal, 25-lb. cans, net	2 00
Pecora.....per 100 lbs.	7 51

CHIMNEY TOPS

Adams' Revolving	
Wt. Doz. Price Doz.	
4 in.....21 lbs.	\$11 00
6 in.....24 lbs.	11 50
7 in.....30 lbs.	13 50
8 in.....33 lbs.	15 00
9 in.....51 lbs.	18 50
10 in.....56 lbs.	18 00
12 in.....66 lbs.	22 00
14 in.....110 lbs.	36 00

CLINKER TONGS

Front Rank, each.....	\$0 75
Per doz.....	8 40

CLIPS

Damper	
Acme, with all tail pieces,	
per doz.....	\$1 25
Non Rivet tail pieces,	
per doz.....	25

COPPERS—Soldering

Pointed Roofing	
3 lb. and heavier.....per lb.	40c
2 1/2 lb.per lb.	45c
2 lb.per lb.	48c
1 1/2 lb.per lb.	55c
1 lb.per lb.	60c

CORNICE BRAKES

Chicago Steel Bending	
Nos. 1 to 6B.....	Net

CUT-OFFS

Gal., plain, round or cor. rd.	
26 gauge.....	30c
28 gauge.....	35c

DAMPERS

"Yankee" Hot Air	
7 inch, each 20c, doz.....	\$1 75
8 inch, each 25c, doz.....	2 40
9 inch, each 30c, doz.....	2 75
10 inch, each 32c, doz.....	3 00

Smoke Pipe

7 inch, each.....	\$0 35
8 inch, each.....	40
9 inch, each.....	50
10 inch, each.....	60
12 inch, each.....	90

Reversible Check

8 inch, each.....	1 55
9 inch, each.....	70

Diamond Smoke Pipe

7 inch, doz.....	\$ 5 00
8 inch doz.....	8 00
9 inch, doz.....	12 00
10 inch, doz.....	15 00

Adams' Sheet Metal

7 inch, doz.....	\$ 1 60
8 inch, doz.....	2 20
9 inch, doz.....	2 60
10 inch, doz.....	2 80

DIGGERS

Post Hole	
Iwan's Split Handle	
(Eureka)	
4-ft. Handle.....per doz.	\$14 00
7-ft. Handle.....per doz.	36 00
Iwan's Hercules pattern,	
per doz.....	14 90

EAVES TROUGH

Galv. Crimpedge, crated 75 & 5%	
Zinc, "Barner".....	60%

ELBOWS

Conductor Pipe	
Galv., plain or corrugated,	
round flat Crimp.	
28 Gauge.....	60%
26 Gauge.....	45%
24 Gauge.....	15%
Galv. & Terne Steel	
Plain Rd. and Rd. Corr.:	
28 Ga.....	60%
26 Ga.....	45%
24 Ga.....	15%

Square Corrugated

No. 28 Gauge.....	60%
26 Gauge.....	35%

Portico Elbows

Standard Gauge Conductor Pipe,	
plain or corrugated.	
Not nested.....	70 & 5%
Nested solid.....	70 & 5%

Sq. Corr., A. & B. & Octagon:

28 Ga.....	50%
26 Ga.....	35%

Portico

1" 1 1/4", 1 1/2".....	45%
------------------------	-----

Copper

16 oz., all designs.....	45%
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Zinc—

All styles.....	60%
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ELBOWS—Stove Pipe

1-piece Corrugated, Uniform Blue	
"Milcor" No. 28 Gauge, Doz.	
5-inch.....	\$1 25
6-inch.....	1 25
7-inch.....	1 75

Special Corrugated

6-inch.....	\$1 00
7-inch.....	1 00

Adjustable—Uniform Blue

"Milcor" No. 28 Gauge, Uniform	
Blue.....	
5-inch.....	\$1 75
6-inch.....	1 85
7-inch.....	2 15

WOOD FACES—50% off list.

726-6-12 1/4" (100 rods).....	\$28 68
1948-6-14 1/4" (100 rods).....	42 62

FENCE

726-6-12 1/4" (100 rods).....	\$28 68
1948-6-14 1/4" (100 rods).....	42 62

FILES AND RASPS

Heller's (American).....	50-10%
American.....	60-10%
Arcade.....	50%
Black Diamond.....	50%
Eagle.....	50%
Great Western.....	50%
Kearney & Foot.....	50%
McClellan.....	50%
Nicholson.....	50%
Simonds.....	60%

FIRE POTS

Clayton & Lambert's	
East of west boundary line of	
Province of Manitoba, Canada,	
No. Dakota, So. Dakota, Ne-	
braska, Kansas, Oklahoma, Ar-	
izona, San Angelo and Laredo,	
Texas.....	52%
West of above boundary.....	48%

Geo. W. Diener Mfg. Co.

No. 02 Gasolene Torch, 1	
qt.....	\$ 5 55
No. 0250, Kerosene, or	
Gasolene Torch, 1 qt.....	7 50
No. 10 Tinner's Furn.	
Square tank, 1 gal.....	12 00
No. 15 Tinner's Furn.	
Round tank, 1 gal.....	12 00
No. 21 Gas Soldering Fur-	
nace.....	3 00
No. 110 Automatic Gas	
Soldering Furnace.....	10 50

Double Blast Mfg. Co.

Gasolene, Nos. 25 and 38.....	60%
-------------------------------	-----

Quick Meal Stove Co.

Vesuvius, F. O. B. St. Louis	30%
(Extra Dist. for large	
quantities)	

GALVANIZED WARE

Falls (Galv. after made),	
10-qt.....	\$2 12
Tubs (Galv. after made).....	
No. 1.....	6 00
No. 2.....	6 85

GLASS

Single Strength, A, 25-in.	
brackets.....	37%
Single Strength, A, 24 to 40-	
in. bracket.....	34%
Single Strength, A, all other	
brackets.....	36%
Double Strength, A, all sizes.....	36%

HANGERS

Conductor Pipe	
Milcor Perfection Wire.....	25%
Eaves Trough	
Milcor Eclipse Wire.....	15%
Milcor Triplex Wire.....	10%
Milcor Milwaukee Extension	10%
Milcor Steel (galv. after	
forming) List.....	plus 12 1/4%
Milcor Selflock E. T. Wire,	
List.....	plus 50%

HOOKS

V. & B. No. 1, each.....	\$0 30
--------------------------	--------

Conductor

"Direct Drive" Wrought	
Iron for wood or brick.....	15%
Hay	
V. & B. No. 1, each.....	\$0 30

HUMIDIFIERS

"Front-Range" Automatic	
In single lots.....	50%
In lots of 10 or more.....	50-5%
In lots of 25 or more.....	50-10%
Vapor pans, etc., each.....	60%

LIFTERS

Stove Cover	
Coppered.....per gro.	\$6 00
Alaska.....per gro.	4 75

MALLETS

Tinner's	
Hickory.....per doz.	\$2 25

MITRES

Galvanized steel mitres,	
28 Ga.....	70
25 Ga.....	60-20

NAILS

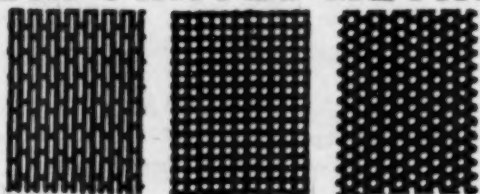
Cut Steel.....	\$4 25
Cut Iron.....	4 35
Wire	
Common.....	2 95

**COPPER & BRASS
RESEARCH ASSOCIATION**
25 Broadway - New York

Announces

the opening of a
Mid-Western Office
at No. 901 Landreth
Building, St. Louis,
Missouri . . . under
the direction of
Mr. Harvey A. Call.

PERFORATED METALS



All Sizes and Shapes of Holes
In Steel, Zinc, Brass, Copper, Tinplate, etc.
For All Screening, Ventilating and Draining
EVERYTHING IN PERFORATING METAL

THE HARRINGTON & KING PERFORATING CO.

5649 FILLMORE ST.-CHICAGO, ILL., U. S. A.
NEW YORK OFFICE 114 LIBERTY ST.



The 13-Cylinder Ventilator
Used in Every State
in the Union.

**SPECIFY ÆOLUS
VENTILATORS**

ÆOLUS FOR HOMES

The home should be properly ventilated—few of them are. Here is a sales opportunity often overlooked by the average Sheet Metal Worker, but one which offers a lucrative business to those who take advantage of it.

Æolus-Dickinson Co.

Vent. Makers Since 1888

3332-53 South Arctesian Avenue
CHICAGO

Phone: Lafayette 1862-1863

Round
Corrugated

Plain Round



NEVER MADE WITHOUT THIS

TRADE *F. Dieckmann* MARK

Quality and Service Made 'em Famous

Made of one piece of heavy gauge material,
in all styles and angles from 10 to 90
degrees, of 24, 26, 28 ga. ternes, then
galvanized after formation.

DIECKMANN Elbows and Shoes

*are the standard of the market
and always give satisfaction*

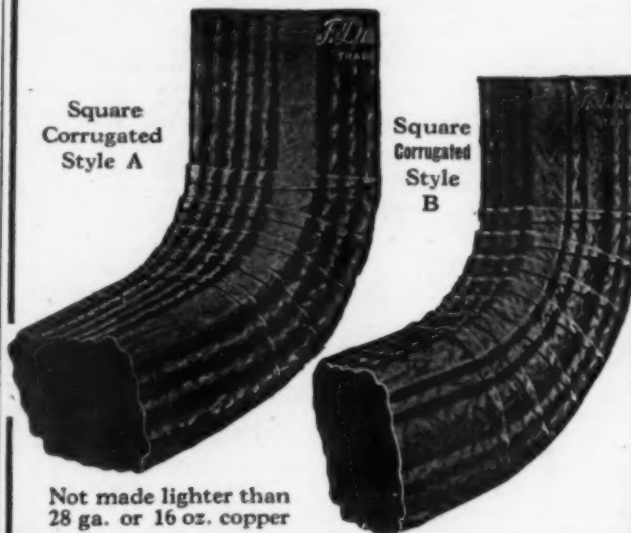
Send for new catalogue 26 showing complete line

The Ferdinand Dieckmann Co.

P. O. Station B, Cincinnati, O.

Square
Corrugated
Style A

Square
Corrugated
Style
B



Not made lighter than
28 ga. or 16 oz. copper

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NETTING, POULTRY	ROOFING
Galvanized before weav- ing 57½-5%	Per Square
Galvanized after weaving. 52½-6%	Best grade, slate surf. prep'd \$2 80
	Best talc surfaced. 2 65
	Medium talc surfaced. 2 00
	Light talc surfaced. 1 20
	Red Rosin Sheeting, per ton 57 00
PASTE	SCREWS
Asbestos Dry Paste:	Sheet Metal
200-lb. barrel \$16 00	7, ½x½, per gross. \$0 52
100-lb. barrel 8 75	No. 10, ¾x3/16, per gross 63
35-lb. pail 3 50	No. 14, ¾x½, per gross. 89
10-lb. bag 1 10	
5-lb. bag 60	
2½-lb. cartons 35	
PIPE	SHEARS, TINNERS' & MACHINISTS'
Conductor	Viking \$22 00
Cor. Rd., Plain Rd. or Sq.	Lennox Throatless
Galvanized	No. 18 35%
Crated and nested (all gauges) 75-2½%	Shear blades 10%
Crated and not nested (all gauges) 70-15%	(f. o. b. Marshalltown, Iowa.)
Furnace Pipe	SHIELDS, REGISTER
Double Wall Pipe and Fittings 50%	No. 1 "Gem" floor \$12 00 doz.
Single Wall Pipe, Round	No. 2 "Gem" wall 6 00 doz
Nested 50%	
Galvanized Pipe 50%	SHOES
Galvanized and Tin Fittings 50%	Galv. 28 Gauge, Plain or
	corg. round flat crimp. 60%
	28 gauge round flat crimp. 45%
	24 gauge round flat crimp. 15%
Lead	SNIPS, TINNERS'
Per 100 lbs. \$12 50	Clover Leaf 40 & 10%
	National 40 & 10%
Stove Pipe	Star 50%
"Milcor" "Titelock" Uniform	Milcor Net
Blue Stove	
28 gauge, 5 inch U. C. nested 11 50	SQUARES
28 gauge, 6 inch U. C. nested 12 25	Steel and Iron Net
28 gauge, 7 inch U. C. nested 14 25	(Add for bluing, \$3 per doz. net)
30 gauge, 5 inch U. C. nested 10 50	Mitre Net
30 gauge, 6 inch U. C. nested 11 25	Try Net
30 gauge, 7 inch U. C. nested 13 25	Try and Bevel. Net
T-Joint Made up	Try and Mitre. Net
6-inch, 28 ga. per Doz. \$ 5 00	Fox's per doz. \$6 00
All Zinc	Winterbottom's 10%
No. 11, all styles 60%	STOPPERS, FLUE
POKERS, STOVE	Common per doz. \$1 10
Wrt Steel, str't or bent, per doz. \$0 75	Gem, No. 1. per doz. 1 10
Nickel Plated, coil handles, per doz. 1 10	Gem, flat, No. 3. per doz. 1 00
POKERS, FURNACE	VENTILATORS
Each \$0 50	Standard 30 to 40°
PULLEYS	WIRE
Furnace Tackle. per doz. \$0 60	Plain annealed wire, No. 3, per 100 lbs. \$2 05
..... per gro. 6 00	Galvanized barb wire, per 100 lbs. 3 90
Furnace Screw (enameled) per doz. 75	Wire cloth—Black painted, 12-mesh, per 100 sq. ft. 1 65
Ventilating Register	Cattle Wire—galvanized catch weight spool, per 100 lbs. 3 65
Per gross. 9 00	Galvanized Hog Wire, 80 rod spool, per spool. 3 18
Small, per pair. 30	Galvanized plain wire, No. 9, per 100 lbs. 3 40
Large, per pair. 50	Stove Pipe, per stone. 1 10
PUTTY	WRINGERS
Commercial Putty, 100-lb. Kits \$3 40	No. 799, Guarantee each \$ 5 10
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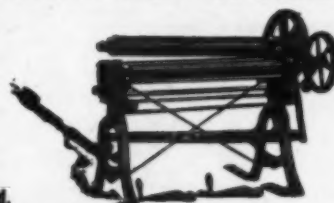
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Philadelphia, Pa.

Tools—Tinsmith's.
Bertsch & Co.,
Cambridge City, Ind.

Chicago Elbow Machine Co.,
Oak Park, Ill.

Double-Duty Mfg. Co.,
Aurora, Ill.

Dreis & Krump Mfg. Co.,
Chicago, Ill.

Marshalltown Mfg. Co.,
Marshalltown, Iowa

Osborn Co., The J. M. & L. A.,
Cleveland, Ohio

Peck, Stow & Wilcox Co.,
Southington, Conn.

Unishear Co., The,
New York, N. Y.

Viking Shear Co.,
Erie, Pa.

Whitney Mfg. Co., W. A.,
Rockford, Ill.

Whitney Metal Tool Co.,
Rockford, Ill.

Torches.
Burgess Soldering Furnace Co.,
Columbus, Ohio

Clayton & Lambert Mfg. Co.,
Detroit, Mich.

Diener Mfg. Co., G. W.,
Chicago, Ill.

Double Blast Mfg. Co.,
North Chicago, Ill.

Quick Meal Stove Co.,
St. Louis, Mo.

Trade Extension.
Copper & Brass Research As-
sociation, New York, N. Y.

Sheet Steel Trade Extension
Committee, Pittsburgh, Pa.

Trimings—Stove.
Fanner Mfg. Co., Cleveland, Ohio

Ventilators.
Arex Company, Chicago, Ill.

Aeolus Dickinson Co.,
Chicago, Ill.

Berger Bros. Co.,
Philadelphia, Pa.

Friedley-Voshardt Co.,
Chicago, Ill.

Hernchen Co.,
Chicago, Ill.

Lupton's Sons Co., David,
Philadelphia, Pa.

Milwaukee Corrugating Co.,
Milwaukee, Wis.

Royal Ventilator Co.,
Philadelphia, Pa.

Standard Ventilator Co.,
Lewisburg, Pa.

Sturtevant Co.,
Boston, Mass.

Ventilators—Ceiling.
Eaglesfield Ventilator Co.,
Indianapolis, Ind.

Hart & Cooley Co.,
New Britain, Conn.

Henry Furnace & Fdy. Co.,
Cleveland, Ohio

Independent Register & Mfg. Co.,
Cleveland, Ohio

Tuttle & Bailey Mfg. Co.,
New York

Sturtevant Co., B. F.,
Boston, Mass.

WANTS AND SALES

Any yearly subscriber to **AMERICAN ARTISAN** may insert advertisements of not more than fifty words in our Want and Sales Columns **WITHOUT CHARGE**.

Such advertisements, however, must be limited to help or situation wanted, tools or equipment for sale, to exchange or to buy, business for sale or location desired.

BUSINESS CHANCES

Lightning Rods—Dealers who are selling Lightning Protection will make money by writing us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable and Fixtures are endorsed by the National Board of Fire Underwriters and hundreds of dealers. Write today for samples and prices. L. K. Diddle Company, Marshfield Wisconsin.

For Sale—First-class sheet metal business. Established 35 years. Owner retiring. Will rent or sell property. Situated in center of city; building constructed especially for the business. Rockford is growing fast, has 100,000 population, including suburbs. Noted for its manufacturing industries. Address 312 Market St., Rockford, Illinois. 18-3t

For Sale—A good furnace business and sheet metal shop in a good live Ohio town of 10,000 population. Stock will invoice about \$1,000. Good reason for selling. Must be cash. Address B-24, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 19-3t

For Sale—Sheet metal and roofing business in good Arkansas town of 8,000 population. Only shop in county. Building 15x40 ft. Priced for quick sale. Address B-27, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 19-3t

Wanted—To buy plumbing and heating shop in northern Illinois. Preferably the lake region or a good location to start new shop. Brokers, do not answer. Address B-15, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 18-3t

Want some concern to manufacture and market my patented sheet metal flue thimble and stop. Address R. C. Snyder, 421 West 4th St., Los Angeles, Calif. 18-1t

SITUATION WANTED

Situation Wanted—A position in the sheet metal line (sheet metal shop or manufacturing) by middle aged man with years of experience on template, galvanized iron, copper and brass. Furnace and some hot water heating and plumbing experience also. Would consider taking some interest with reliable party. Address B-13, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 18-3t

Situation Wanted—I want to make connections with a manufacturer or jobber of steel furnaces as heating engineer or salesman. Have had many years' experience selling and know my services will meet your requirements. Address B-26, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 19-3t

Situation Wanted—By a first class plumber and tinner, also furnace man, have worked over 30 years at the trade. Am married. Want steady position the year around. Hardware shop in small town up to 3,000 population preferred. Please state wages. Address Box 663, Fargo, North Dakota. 20-3t

SITUATION WANTED

Situation Wanted—By first-class tinner and furnace man. Can do inside and outside work. 25 years at the trade. Nothing but steady job the year around. Am married. Can do anything that comes in any tin shop. Address W. J. Mack, 106½ East Main Street, Saint Charles, Illinois. 18-3t

Situation Wanted—By sheet metal worker and furnace man. 15 years at the trade. Married and sober. Nothing but year around position considered. State wages and hours in first letter. W. E. Hull, 409 Military, Dodge City, Kansas. 20-3t

Situation Wanted—By competent tinner and plumber. Can do anything that will come into small town shop. Married, 34 years old. Also capable hardware clerk. State wages in first letter. Address B-29, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 20-3t

Situation Wanted—by first-class sheet metal worker, warm air furnace installer, and all-around tinner. Also plumbing and hot water heating. Address B-21, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 19-3t

Situation Wanted—By an all around sheet metal worker. Can estimate, detail and cut patterns. A first class workman inside and out. Address B-28, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 20-3t

Situation Wanted—To represent jobber for sheet metal and tin shops and furnace supplies, in Wisconsin. Know the trade in the state. Address B-14, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 18-3t

Situation Wanted—To represent a stove and furnace manufacturer in Wisconsin. Can furnish references and know the trade in this state. Address B-19, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 18-3t

Situation Wanted—As tinner and sheet metal worker, also furnace man. Will take shop on percentage or buy interest in shop or work awhile and buy later on. Address 275 E. Barren Street, Galesburg, Illinois. 19-3t

Situation Wanted—I am an experienced furnace installer and sheet metal worker and seek employment. Am married and desire steady employment. For further information address Wm. R. H. Cooke, 1523 North 5th Street, Cedar Rapids, Iowa. 20-3t

Situation Wanted—By first-class tinner and furnace man with over thirty years' experience. Also do plumbing. Good habits. Address Guy Hasty, % W. E. Bower, Monett, Missouri. 18-3t

Situation Wanted—As furnace installer. Twenty years at the business. Can also do sheet metal work. Address B-25, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 19-3t

HELP WANTED

Wanted—Furnace salesman, one that can lay out his own jobs according to the standard code, in a city of about 16,000 population and surrounding territory. Straight commission. Must be live wire and furnish references, also whether married or single. Box 983, Aberdeen, South Dakota. 18-3t

Wanted—Two good sheet metal workers familiar with slate and tile work; also want young sheet metal worker as outside foreman and salesman. Give experience and full particulars. Address B-22, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 19-3t

Wanted—Union shop foreman. Must be first class mechanic and all around tinner and sheet metal worker, who can read plans, layout work and manage large shop. Must be a sober, conscientious worker. A-1 references required. Address Wm. A. Tipton, Inc., 4948-50 Easton Avenue, St. Louis, Missouri. 20-3t

Wanted—A plumber to take an interest in a business. Plenty of work to start with. New water system installed in town. A small capital required but not necessary if a willing worker. Can start at once. Year around proposition. Wire, if interested. S. W. Laceby, Mackinac Island, Michigan. 20-3t

Wanted—At once, good all around tinner and sheet metal worker. Must be good on job work and fast. Will guarantee steady work until January first. \$40.00 per week. 8-hour day. Address J. H. Barnett, Sheet Metal Works, Dodge City, Kansas. 18-3t

Wanted—Salesman experienced in sheet metal products and tinner's supplies. Either salary or commission. State experience. Address B-16, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 18-3t

Wanted—Experienced sheet metal worker and furnace installer. One who understands his business and can produce results. Steady job. State wages expected. Bodlak's Tin Shop, Devils Lake, North Dakota. 19-3t

Wanted—Assistant sales manager, one experienced in sheet metal work and sheet metal products. State experience. Address B-17, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 18-3t

Wanted—Good opening for furnace salesman in fast growing city of 32,000. Apply Advance Builders, 3rd floor, 28 North Genesee St., Waukegan, Illinois. 18-3t

Wanted—Sheet metal workers for general sheet metal work, furnace work, roofing, etc. State experience. Brouillet Sheet Metal Works, 271 Iowa St., Dubuque, Iowa. 20-3t

Apollo NICKEL ZINC

PURE NICKEL SURFACE NON-RUSTING SHEETS

WE send letters to housewives in your territory telling them all about APOLLO NICKEL ZINC for Table Tops and Drain Boards—a sample of APOLLO NICKEL ZINC goes with each letter.

All you have to do is co-operate with us and stock NICKEL ZINC

to get your share of the business we are developing.

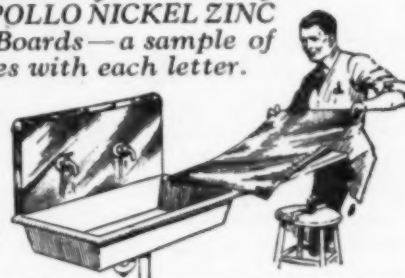
THESE special jobs we help you land make new customers for you—giving you the opportunity of securing other sheet metal and furnace business.

Send the coupon NOW!

APOLLO METAL CO., LA SALLE, ILL.

Send me a sample of APOLLO NICKEL ZINC and full details about your advertising letters.

Name _____ Address _____



When writing mention AMERICAN ARTISAN—Thank you!

HELP WANTED

Wanted—Experienced foreman able to handle forty to fifty men in sheet metal forming department and assembling for steel refrigerators; some pattern work. Give references. Illinois Refrigerator Co., Morrison, Illinois. 20-3t

Furnace Salesman Covering Nebraska wants live side line on commission. Address B-23, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 19-3t

TINNERS' TOOLS

For Sale—A full set of tinner's tools excepting brake, all in A-1 condition, including work bench. Invoice \$681.46. Price for cash, \$150; also some Caloric furnace parts; Alamo light plant. R. W. Tyler, 44 White Court, Canton, Illinois. 19-3t

Wanted—One only used 8' cornice brake. Price right for cash. Lee W. Panney, Box 26, Camden, Michigan. 20-3t

SPECIAL NOTICES

The Rate for Special Notices
— displayed want ads —
\$3.00 per inch per insertion.

PATENTS

HUBERT E. PECK
Patent Attorney
Barriester Bldg., WASHINGTON, D. C.

SHEET METAL FURNACE MECHANIC

wants position with someone willing to go fifty-fifty on constructing—installing—marketing new **Low Cost Automatic Fuel Oil Burners**. Common shop facilities sufficient to build up a big business. Not interfering with other work. Address "Heating Expert," 2217 So. Millard Avenue, Chicago, Illinois. 14-1t

WANTED FURNACE SALESMAN

to travel an Iowa territory calling on dealers. Must have a successful selling record, understand the furnace business and be a producer.

This is a high-class proposition, and only men who can make good need apply.

Salary and expenses paid with a commission in addition.

Give your complete record in first letter. Address W-19, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 20-2t.

WANTED SALES MANAGER


for prominent furnace manufacturer of Northern Ohio. The man that is wanted must be able to take complete charge of salesmen and direct sales. Salary to be commensurate with ability and high enough to attract man of high caliber. Please do not reply unless you are in a position to qualify. Address W-18, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 20-3t.

SPECIAL NOTICES**WANTED**

Salesman calling on industrial plants, etc., in Illinois, to sell ventilating systems for an established manufacturer. Excellent opportunity for right man. Address W-11, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t.

WANTED**EXPERIENCED FURNACE DEALER**

to buy part interest in retail furnace business in eastern city of 200,000 inhabitants. Must be capable of managing 500 installations per year but there is ample capital available in the company to finance the business. Partner manager, of successful experience required. Address the Lennox Furnace Co., Syracuse, New York, for information as to this dealer opportunity. 18-2t



AREX
Original Siphonage Ventilator
The Power Fans Only Rival!
200,000 Perfect Installations!
Write for prices today
AREX COMPANY 1581 Conway Bldg. CHICAGO

SPECIAL NOTICES**STATE****REPRESENTATIVES WANTED**

to handle complete line of furnace fittings for one of the oldest and best established firms in the country.

We want men in all the Northern, Southern and Western States to represent us either exclusively or in conjunction with some hardware or sheet metal line.

Experience in furnace fittings not necessary, but acquaintance with trade would be very helpful. Give full details in first letter.

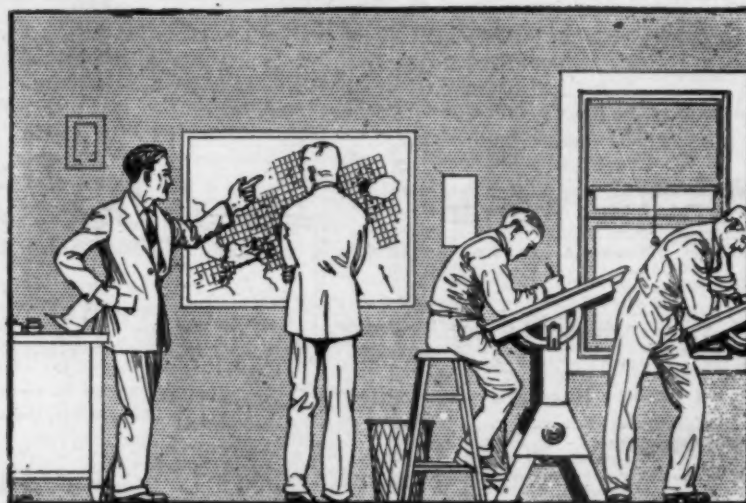
Write at once to W-8, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

HARDWARE AND HOUSE FURNISHING LINES WANTED

by Manufacturers' Representative who is thoroughly acquainted with the trade. Headquarters, Chicago. Address, Manufacturers' Agent, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 16-3t.

WANTED

Furnace salesmen in Illinois, Indiana and Iowa territories, who would like profitable side line connection with a nationally advertised product. Please communicate with W-17, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 17-3t.

**SPECIAL SHORT COURSES IN WARM AIR HEATING**

1. Draughting. (Class room instruction or correspondence.)
2. Engineering. " " " "
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NATIONAL HEATCRAFT INSTITUTE

202 Main St.
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When writing mention AMERICAN ARTISAN—Thank you!



Traveling East or West

A restful night on beautiful Lake Erie—to or from Niagara Falls, will add enjoyment to your trip.

Palatial steamers—Unlimited facilities, including large airy state-rooms, excellent dining room service.

Daily May 1st to November 14th—Each Way Every Night between Cleveland and Buffalo

Leaving 9:00 p. m., arriving 7:30 a. m. (Eastern Standard Time)

Write for new Steamer Schedule between Cleveland and Buffalo via ERIE during July and August

Connections at Buffalo for Niagara Falls, Eastern and Canadian points. Connections at Cleveland for Cedar Point, Put-in-Bay, Toledo, Detroit and points West.

Our new 32-page Tourist Guide with complete information and maps will be mailed free—on request.

Ask your ticket agent or tourist agency for tickets via C & B Line. Your rail ticket is good on our steamers.

FARE \$5.50

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The NEW

TEELA BOLTLESS REVERSIBLE CHECK DRAFT



EASY to install: simply cut a round hole in smoke pipe and CLAMP on the TEELA check draft.

Reversible — no tee joint needed.

Fastened by clamp—no bolts necessary.

Easy to remove when smoke pipe is worn out — loosen clamp, slide check off.

Cuts labor one-third—makes profit larger.

Write for circular and prices today

TEELA SHEET METAL CO., - - OSHKOSH, WIS.

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THE CLEVELAND CASTINGS PATTERN COMPANY
CLEVELAND, OHIO

PATTERNS
FOR STOVES AND HEATERS FIRST-CLASS
IN WOOD AND IRON
VEDDER PATTERN WORKS ESTABLISHED 1835 TROY, N. Y.

IRON AND WOOD
STOVE PATTERNS
QUINCY PATTERN COMPANY
QUINCY, ILLINOIS

READ THE WANTS AND SALES
PAGES

SELL this different Metal Clothes Chute Door to Contractors and Home Owners

THE Robinson Metal Clothes Chute Door is making extra profits for many Sheet Metal Contractors.

HEAVILY NICKELED INSIDE AND OUT

It is more economical to install than wood clothes chute doors, it is much better looking and because it is metal it will not warp or crack.

FITS PERFECTLY

It is easy to install—requires no special fittings and no changes are necessary in the construction of the chute.

HINGE ALLOWS FULL OPENING 9 1/4 x 12 3/4

It is very attractive and high quality, yet economical enough to induce ready sales.

PATENT CATCH PROVIDES EASY AND CERTAIN OPERATION

Write for full details, circular and prices today.



PUT a Robinson Metal Clothes Chute Door in your Window Display. Its heavy nickeled finish attracts attention.

The A. H. ROBINSON COMPANY
MASSILLON, OHIO

CHICAGO STEEL SLITTING SHEAR

LIGHT—POWERFUL DURABLE



Capacity 10 gauge sheets
Any Length or Width
Flat Bars 3/16x2"
Weight 22 pounds
Price \$12.50 Net
F. O. B. Chicago

Made of pressed steel and equipped with hold-down. Blades of highest grade crucible steel. Most indispensable high grade shears made. Equal to other shears selling at over twice the price. **ORDER YOURS TODAY.**

DREIS & KRUMP MFG. CO., 7404 Loomis St., Chicago

WIRE

electrical, rope, barbed, plain, nails (bright

and coated), tacks, spikes, bale ties, hoops, springs, netting, wire fences, steel posts, steel gates, trolley wire, rail bonds, flat wire, cold rolled strip steel, piano wire, round and odd-shape wire, screw stock, concrete reinforcement. Aerial tramways.

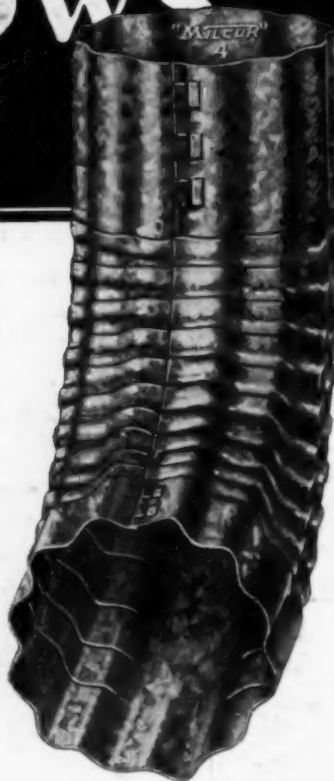
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American Steel & Wire Company
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MILCOR ELBOWS

Quality
Counts!

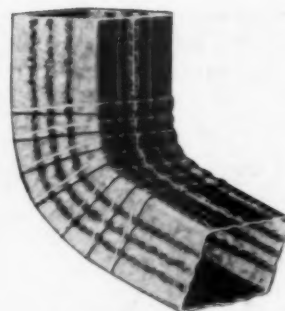
LOOK for the name "Milcor" and the figure designating size, which are embossed on every Milcor Rain Conductor Pipe Elbow. Whenever, wherever you order, specify Milcor and insist on the genuine. For your own protection and for the good-will of your customers, specialize on the complete Milcor Line. Milcor ONEPIECE Conductor Pipe Elbows are double-coated, hand dipped after formation, neatly and safely packed in fibre containers to insure their arrival in finest condition.



TWENTY-FIVE YEARS of manufacturing service and cooperation with the sheet metal trade has resulted in Milcor's development to the point where we are now the world's largest producers of elbows. Whether it be Rain Conductor Pipe Elbows, Furnace Pipe Elbows, Stove Pipe Elbows or Speaking Tube Elbows, you can always depend on Milcor for the best.

Leading jobbers everywhere carry the Milcor Line of Eaves Trough, Conductor Pipe, Trimmings, Roofing, Furnace Pipe and Fittings, Stove Pipe and other famous Milcor Products in stock — or you can secure quick service also direct from our main plant at Milwaukee or any of our branches.

MILWAUKEE CORRUGATING COMPANY, *Milwaukee, Wisconsin*
CHICAGO, ILL. KANSAS CITY, MO. LA CROSSE, WIS.



Milcor ONEPIECE Conductor Pipe Elbows

Plain Round—Corrugated Round—Corrugated Square—Galvanized after formation



Kuehn's Korrekt Kutoffs

Plain Round—Corrugated Round—Corrugated Square—Galvanized after formation



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All Milcor Products now available in Steel, "Coppered Metal", Zinc, Anaconda Copper or rust-resisting



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